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S. DEPARTMENT OF AGRICULTURE
OFFICE OF EXPERIMENT STATIONS.

DIETARY STUDIES IN CHICAGO

IN

1892 AND 1896.

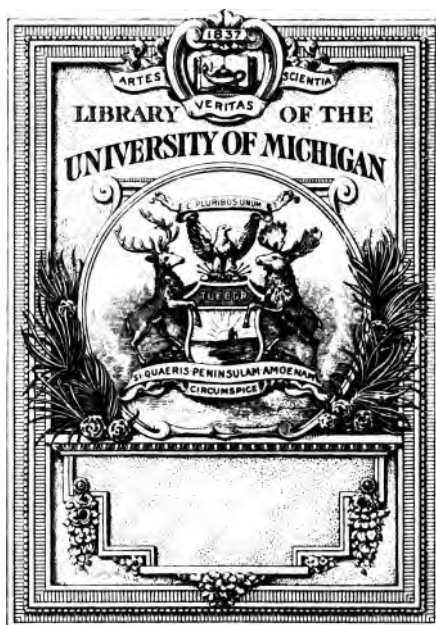
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AND CAROLINE L. GENT OF HULL HOUSE.

REPORTED BY

W. O. NEWATER AND A. P. BRYANT.

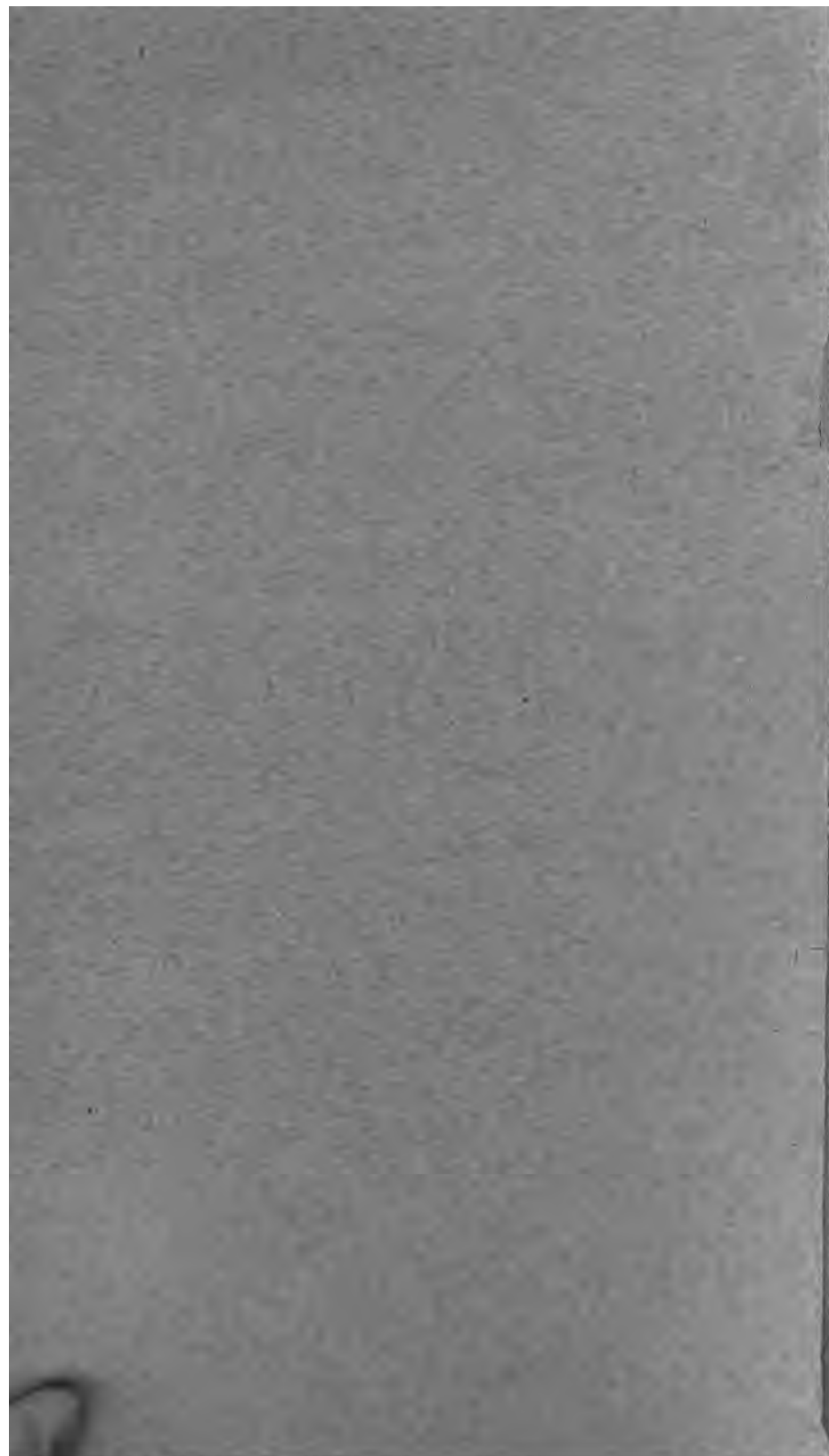


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1898.



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U. S. DEPARTMENT OF AGRICULTURE,
OFFICE OF EXPERIMENT STATIONS.

DIETARY STUDIES IN CHICAGO

IN

1895 AND 1896.

CONDUCTED WITH THE COOPERATION OF JANE ADDAMS
AND CAROLINE L. HUNT, OF HULL HOUSE.

REPORTED BY
W. O. ATWATER AND A. P. BRYANT.



WASHINGTON:
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1898.



LETTER OF TRANSMITTAL.

U. S. DEPARTMENT OF AGRICULTURE,
OFFICE OF EXPERIMENT STATIONS,
Washington, D. C., September 24, 1898.

SIR: I have the honor to transmit herewith a report on dietary studies made in Chicago, Ill., in 1895 and 1896, under the supervision of Prof. W. O. Atwater, special agent in charge of nutrition investigations, under instructions given by the Director of this Office.

The general plan of the inquiry was much the same as that followed in the investigations conducted among typical families in the densely populated districts of New York City, the results of which have been published as Bulletin No. 46 of this Office. The dietary studies herewith reported were chiefly made among families of the foreign-born population of Chicago, including Italians, French Canadians, Russian Jews, and Bohemians. The dietaries of three families of Americans were also studied.

In the prosecution of these investigations this Office has had the active cooperation of Miss Jane Addams, of the Hull House, who aided in selecting the families whose food habits were to be studied, and superintended the details of the work. The statistics of the studies were gathered largely by Miss Caroline L. Hunt, with the help of other residents of the Hull House. The familiarity which the Hull House residents have with the conditions existing in that region of Chicago in which their settlement is located, and the confidence which they have inspired in the people for whose good they have labored, were important factors in the successful management of the investigations.

To give the Hull House workers a satisfactory understanding of the technical details involved in the carrying on of dietary studies in accordance with the plans formulated by this Office, Mr. H. M. Smith, a special agent of the Department, was sent to Chicago to institute the work and personally attend to the details of several dietary studies.

The editorial work involved in the preparation of the report has been largely performed by Mr. A. P. Bryant, at Middletown, Conn.

Samples of typical food materials used in these families were collected and prepared for analysis by Miss Hunt. The analyses were made in the laboratory of the special agent in charge of nutrition investigations at Wesleyan University, Middletown, Conn.

This report is respectfully submitted with the recommendation that it be published as Bulletin No. 55 of this Office.

A. C. TRUE,
Director.

Hon. JAMES WILSON,
Secretary of Agriculture.



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DIETARY STUDIES IN CHICAGO IN 1895 AND 1896.

INTRODUCTION.

The problem of the proper sustenance of the poor in large cities is constantly assuming greater proportions. In many instances the income of a family is so small that the greater part must be expended on the necessary food. Not infrequently, through ignorance of the nutritive value of different foods, unwise selection, and improper cooking and serving, the actual value of the food for nourishment is much less than might have been obtained for the same money expenditure.

With the progress of human knowledge and human experience, we are at last coming to see that the human body needs the closest care. The power of a man to do work depends upon his nutrition. A well-fed man has strength of muscle and of brain, while a poorly nourished man has not. A man's nourishment is not the only factor of his producing power, but is an important one.

PURPOSE AND PLAN OF THE STUDIES.

It is by means of dietary studies that the most reliable data concerning the food consumption of people of different nationality, sex, and occupation, and under different financial and hygienic conditions, can be obtained. The purpose of the dietary studies here reported was to obtain information regarding the conditions of living and the pecuniary economy of the food of the poor of different nationalities residing in the worst congested districts of Chicago. The studies were, with few exceptions, made in the vicinity of Hull House.

As is well known to all who are familiar with the philanthropic movements in the United States, Hull House is a social settlement similar in purpose to the "university," "college," and other social "settlements" which have been established in a number of our cities, as well as in England. It is situated in one of the most densely populated districts of the "West Side." This region is largely inhabited by immigrants, almost every nation of Europe being represented. Some of the residents have a very high degree of intelligence, but many are very ignorant. In purchasing food, taste and cost are usually the only points considered, as there is little appreciation of the fact that foods vary greatly in nutritive value.

The managers and residents of Hull House are very familiar with the region. They are in close touch with the people, enjoy their confidence, and exert an influence over them which is remarkable for its extent and for its great and diversified usefulness. The thorough acquaintance of Miss Addams and others of Hull House with the district, and their close sympathy with the people, were most important factors in carrying on this investigation. These circumstances made it possible to choose representative families, to gain access to the homes selected, and to conduct the inquiry with an understanding of the problems involved which otherwise would have been out of the question.

The plan involved the selection of groups of families, each group representing a nationality, and each family being more or less typical of the people of that nationality in that part of Chicago. The data sought included the character, amount, and cost of the food consumed during a given length of time; the age, sex, and occupation of the different members of the family; the number of meals taken by each person, and, as far as possible, the financial and hygienic conditions of the family at the time of the study. From the above and the data for the amounts of food materials and from the composition as found by analysis or assumed from tables of average composition of similar materials, the total amount of protein, fats, and carbohydrates consumed and the amounts per man per day were computed.

As a rule, a woman requires less food than a man, and the amount required by children is still less, varying with age. It is customary to assign certain factors which will represent, approximately, the amount of nutrients required by different persons as compared with an adult man engaged in moderate muscular labor. The various factors which have been adopted and which were used in the computation of the dietaries are as follows:

Factors used in calculating meals consumed in dietary studies.

- A woman requires about 0.8 the food of a man.
- A boy 14 to 16 years old requires about 0.8 the food of a man.
- A girl 14 to 16 years old requires about 0.7 the food of a man.
- A child 10 to 13 years old requires about 0.6 the food of a man.
- A child 6 to 9 years old requires about 0.5 the food of a man.
- A child 3 to 5 years old requires about 0.4 the food of a man.
- A child under 2 years old requires about 0.3 the food of a man.

These factors are based in part upon actual investigations and in part upon arbitrary assumption. They are subject to such revision as future experimental evidence may warrant. By the use of these factors the number of meals actually taken by each member of the family is calculated into the equivalent number of meals for an adult man. In this way the total number of meals taken by the family is finally expressed in terms of meals per man, and by dividing this latter value by the number of meals taken per day (usually three) the equivalent number of days for one man is obtained. The total nutrients of the

food eaten during the study, divided by this equivalent number of days for one man, gives the amounts of nutrients "per man per day," the basis upon which the dietary studies are compared.

TRUSTWORTHINESS OF THE STATISTICS HERE REPORTED.

The dietary studies reported beyond may be divided into two classes:

(1) Those in which the statistics were directly obtained by the person in charge of the studies through personal visits to the families two or more times each day, and (2) those in which the statistics were recorded by the families themselves according to specific directions.

The statistics of the first class may be regarded as giving trustworthy data concerning the kinds and amounts of food purchased by the different families. Those of the second class are less reliable. They are, however, considered of sufficient interest to warrant their publication, since they show the kinds, even if they do not give accurately the amounts, of food materials actually purchased. The chief source of error lies in the possible tendency to give a false impression of the amount of food consumed, either by reporting larger quantities than were actually purchased or by procuring larger quantities than usual, or by omitting to record all purchases. Another source of error might occur in the incomplete record of the actual number of meals taken by the individual members of the family or by visitors. It is noticeable that in general the dietaries of this class would indicate a larger food consumption than was found in the studies of the first class, in which the food materials were actually weighed by those conducting the investigations.

Even under the most favorable circumstances and with the most careful attention on the part of those conducting the investigations, certain possibilities of error constantly occur in studies of this kind among the poor. Many of the families had formerly been in more comfortable circumstances and were ashamed to let it be seen how economically they now lived and, it may be, how scantily they were nourished. In such cases there might be a tendency to buy more food during the study than ordinarily. In other cases, a desire for pecuniary assistance may have led to the purchase of less food than usual or to concealing food actually purchased. These conditions make it advisable that, wherever practicable, such studies should be carried on by those who are constantly more or less in touch with the families; one who knows them and sympathizes with them and who can observe their manner of living before, during, and after a dietary study, and can judge of the degree of accuracy of the study itself. Such favorable conditions were found in the dietary studies among the poor of New York City.¹

¹ U. S. Dept. Agr., Office of Experiment Stations Bul. 46. (See p. 2 of cover.)

NATIONALITY OF FAMILIES STUDIED.

The investigations included dietary studies among families of Italians, French Canadians, Russian Jews, both orthodox and unorthodox or liberal, and Bohemians.

It was hoped that by means of such studies as these some idea might be obtained of the degree in which the people of different nationalities modify their diet after living in this country for different periods. To this end some of the dietary studies were made among families but recently immigrated to this country, others among families resident in the United States for five years or over, and others among families the heads of which were born in this country but of foreign parentage.

In addition, dietary studies of three American families were also made for comparison. These latter families were in comfortable circumstances, but endeavored to economize in their food consumption in order to increase their expenditures in other directions. It was thought that in this way light might be obtained concerning the relative cost of the food of the ignorant foreign poor and the native well-to-do American. The methods followed in conducting the dietary studies were similar to those described in other bulletins of this series.¹

CHARACTER AND COMPOSITION OF FOOD MATERIALS USED.

Among the different nationalities many food materials in common use were quite unlike those ordinarily used by native Americans. Samples of such of these materials as were used in any considerable amount were taken for analysis. Numerous samples of common food materials of low grade were also taken. The composition of all foods not analyzed was assumed from tables showing the average of analyses of similar materials. The figures used for the composition of all the food materials included in the dietaries, whether analyzed in connection with the dietary studies themselves, or assumed as the average of analyses of similar food materials sampled and analyzed in connection with other studies of this series, or taken as the average of all American analyses of similar food materials, are shown in the Appendix.

Complete analyses were made of 48 samples; of these, 13 were analyzed in connection with the studies among the Jews and 7 in connection with the studies among the Bohemians. The remaining 28 were miscellaneous samples. The description of the samples is briefly as follows:

SAMPLES TAKEN IN CONNECTION WITH DIETARY STUDIES AMONG ORTHODOX RUSSIAN JEWS.

2627, 2650. *Beef, chuck*.—These samples, like all meat purchased by Jewish families, were from animals slaughtered in the particular manner prescribed by the religious tenets of this sect. Practically all of the blood is removed from the body of the animal by severing arteries in the neck in slaughtering. It was found in these

¹ See list on page 2 of cover.

studies that the meat was usually soaked in water for several hours after it was purchased by the family in order to remove the last trace of blood. This would of course remove some of the soluble constituents of the meat. The samples analyzed were not soaked, but were prepared for analysis as received from the butcher. In some instances, in order to insure representative samples, two pieces of meat as nearly alike as possible were purchased, one being taken for analysis, while the other was eaten by the family. The chuck corresponds very closely to the cut ordinarily sold under the same name.

2635, 2641, 2657. *Beef breast, brisket or clod, and cross-ribs*.—The Jews have a cut of beef called "breast." This includes, apparently, a portion of the brisket, shoulder, and cross-ribs of the side of beef as usually cut. The cut is variously called breast, brisket or clod, and cross-ribs in the dietaries beyond. There was usually little if any refuse, and in three samples analyzed none was found. In some instances, however, the ends of the ribs were included in the cut as bought by the Jewish families.

2629, 2640, 2658. "*Flanken*", or *plate*.—This cut, although suggesting the ordinary flank by its name, is that usually known as the plate. In no case was any part of the hind quarter used, to which the flank proper belongs.

2663, 2662, 2654, 2665. *Veal breast, chuck, rib, and shoulder*.—The method of slaughtering is the same as that described above. The cuts are similar to those ordinarily found in the market under the same names.

2659. *Vienna sausage (Wienerwurst)*.—This is made from beef, veal, and mutton in different proportions, no pork being allowed in the Jewish diet. Like Bologna and Frankfort sausage, it contains considerably more protein and less fat than sausage made from pork.

SAMPLES TAKEN IN CONNECTION WITH DIETARY STUDIES AMONG BOHEMIANS.

2729. *Beef, chuck*.—This was the ordinary chuck rib, and rather lean.

2731. *Veal, roast (loin)*.—This was from the loin, and as purchased included the kidney and kidney fat, which were removed and not included in the sample as analyzed. The kidney was analyzed as No. 2732. The loin weighed 2.90 pounds and the kidney and kidney fat 0.27 pound.

2732. *Kidney (and kidney fat) from 2731*.—The fat weighed 0.12 pound and the kidney itself 0.15 pound. The kidney fat was not analyzed.

2736. *Tripe*.—This was fresh, unpickled tripe.

2730. *Pork and beef chopped together*.—This consisted of about equal proportions of beef and pork.

2737. *Smoked pork*.—Miscellaneous cuts.

2734. *Pork, brains*.—The brain weighed 1.25 pounds.

MISCELLANEOUS SAMPLES.

2637, 2649. *Beef, soup meat*.—Lean meat with but little bone.

2664. *Beef, scraps*.—These were much fatter than the two preceding samples.

2628. *Pork chops (loin)*.—The ordinary cut.

2661. *Pork, shoulder*.—This was not cured.

2638. *Pork, smoked ham*.—Cured and smoked.

2666. *Pork, side bacon*.—Cured and smoked.

2651. *Pork, head-cheese*.—This was prepared in the usual way.

2660. *Bologna sausage*.—Cured and smoked.

2652. *Frankfort sausage*.—Cured and smoked.

2738. *Pork sausage*.—Made from fresh pork.

2636. *Ham sausage*.—Made from cured ham.

2653. *Canned salmon*.—The can contents weighed 1.06 pounds.

2631, 2633, 2667. *Bread*.—Cheap grade, baker's wheat bread. Rather dark color.

2634. *Rye and wheat bread.*—Baker's rye and wheat bread.

2630. *Rye bread.*—Poor quality baker's rye bread.

2655. *Black bread.*—This bread bears about the same relation to ordinary rye bread as graham bread does to ordinary wheat bread.

2632. *Cup cakes.*—Purchased at a bakery in the region where the studies were carried on.

2656. *Doughnuts.*—Purchased at a bakery in the region where the studies were carried on.

2668-2671. *Wheat flour.*—The samples were purchased as representative of the low-grade cheap wheat flour used by many of the families studied, especially by the Jews and Bohemians.

The results of the analyses are given in the following tables. Table 1 shows the composition "as purchased in the market" of all material that contained refuse. Table 2 shows the composition of the edible portion of all samples analyzed.

TABLE 1.—Composition, as purchased, of such food materials as contained inedible matter or refuse.

Food materials.	Laboratory No.	Refuse.	Water.	Protein.	Fat.	Carbohydrates.	Ash.	Fuel value per pound.
		Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Calories.
FOODS USED BY JEWISH FAMILIES.								
Beef:								
Chuck	2627	34.5	36.5	11.3	17.1	.....	0.6	93
Do	2650	16.2	61.1	11.7	10.3	.....	.7	653
Average		25.3	48.8	11.5	13.7	.....	.7	790
Flanken (plate)	2629	29.7	47.1	14.1	8.3	.....	.8	610
Do	2640	17.8	47.3	13.8	20.4	.....	.7	1,128
Do	2658	15.2	39.2	12.6	32.3	.....	.7	1,593
Average		20.9	44.6	13.5	20.3	.....	.7	1,110
Veal:								
Breast	2663	46.8	38.9	12.3	1.3	.....	.7	285
Chuck	2662	19.0	61.8	16.7	1.6	.....	.9	380
Rib	2654	25.0	56.1	10.1	8.2	.....	.6	535
Shoulder	2665	25.1	56.1	15.5	2.3	.....	1.0	385
FOODS USED BY BOHEMIAN FAMILIES.								
Beef, chuck	2720	15.7	54.7	16.2	12.5	.....	.9	830
Veal:								
Roast	2731	29.0	53.2	13.5	3.5	.....	.8	400
Roast with kidney		26.3	52.7	13.3	6.9	.....	.8	540
MISCELLANEOUS FOODS.								
Beef:								
Soup meat	2637	1.4	69.9	20.9	6.8	.....	1.0	675
Do	2649	11.2	64.4	18.1	5.3	.....	1.0	560
Average		6.3	67.2	19.5	6.0	.....	1.0	615
Scraps	2664	21.2	39.9	13.1	25.1	.....	.7	1,305
Pork:								
Chops	2628	16.6	41.7	16.3	24.6	.....	.8	1,340
Shoulder	2661	5.8	53.8	15.4	24.2	.....	.8	1,305
Ham, smoked	2638	28.4	27.3	10.2	29.6	.....	4.5	1,440
Bacon, side	2666	24.4	23.3	9.8	30.2	.....	12.3	1,690
Ham sausage	2636	2.6	52.3	11.1	29.7	.....	4.3	1,460

TABLE 2.—Composition of edible portion of food materials analyzed.

Food materials.	Laboratory No.	Water.	Protein.	Fat.	Carbo-hydrates.	Ash.	Fuel value per pound.
FOODS USED BY JEWISH FAMILIES.							
Beef:		<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Caloriss.</i>
Chuck	2627	55.7	17.3	26.1	.....	0.9	1,425
Do	2650	73.0	14.0	12.2	.....	.8	775
Average		64.4	15.6	19.1	.....	.9	1,095
Cod and cross ribs	2635	62.1	18.4	18.6	.....	.9	1,125
Do	2641	61.9	17.7	19.4	.....	1.0	1,145
Do	2657	59.8	18.8	20.4	.....	1.0	1,210
Average		61.2	18.3	19.5	.....	1.0	1,160
Flanken (plate)	2629	67.0	20.0	11.9	.....	1.1	875
Do	2640	57.5	16.7	24.9	.....	.9	1,360
Do	2658	46.3	14.9	38.0	.....	.8	1,880
Average		50.9	17.2	24.9	.....	.9	1,185
Veal:							
Breast	266.	73.2	23.1	2.5	.....	1.2	535
Chuck	2662	76.3	20.6	1.9	.....	1.2	465
Rib	2654	64.8	18.8	15.3	.....	1.1	995
Shoulder	2665	74.9	20.7	3.1	.....	1.3	515
Vienna sausage (Wiener-wurst)	2650	43.9	28.0	22.1	1.6	4.4	1,480
FOODS USED BY BOHEMIAN FAMILIES.							
Beef, chuck	2729	64.9	19.2	14.8	.....	1.1	980
Tripe	2736	79.6	18.3	1.7	.....	.4	410
Veal:							
Roast	2731	74.9	19.0	5.0	.....	1.1	565
Kidney	2732	76.8	16.4	5.4	.....	1.4	535
Roast, with kidney		71.5	18.0	9.4	.....	1.1	730
Pork and beef chopped together	2730	55.4	19.5	24.1	.....	1.0	1,380
Pork, smoked	2737	46.5	15.0	44.8	.....	3.7	2,170
Pork brains	2734	75.8	12.3	10.3	.....	1.6	665
MISCELLANEOUS FOODS.							
Beef soup meat	2637	70.9	21.2	6.9	.....	1.0	685
Do	2649	72.6	20.4	5.9	.....	1.1	630
Average		71.7	20.8	6.4	.....	1.1	655
Beef scraps	2664	50.6	16.6	31.8	.....	1.0	1,650
Pork:							
Chops	2628	50.0	19.5	29.5	.....	1.0	1,610
Shoulder	2661	57.1	16.3	25.7	.....	.9	1,390
Smoked ham	2638	38.1	14.3	41.4	.....	6.2	2,015
Side bacon	2666	30.8	12.9	40.0	.....	16.3	1,930
Head-cheese	2651	38.1	18.4	40.5	.....	3.0	2,050
Bologna sausage	2660	63.1	17.2	13.8	1.7	4.2	935
Frankfort sausage	2652	59.9	18.3	18.6	.....	3.2	1,125
Pork sausage	2738	49.3	11.2	31.8	5.3	2.4	1,650
Ham sausage	2636	53.7	11.4	30.5	.....	4.4	1,500
Salmon (canned)	2653	59.5	20.7	17.3	.....	2.5	1,115
Bread:							
Wheat, poor quality	2631	30.4	9.9	.9	57.4	1.4	1,290
Do	2633	32.6	12.9	.7	52.8	1.0	1,250
Do	2667	28.0	16.3	1.4	53.4	.9	1,355
Average		30.3	13.0	1.0	54.6	1.1	1,300
Rye and wheat	2634	35.3	11.9	.3	51.5	1.0	1,190
Rye, poor quality	2630	35.0	10.3	.4	52.2	2.1	1,180
Do	2735	33.7	10.4	.5	53.9	1.5	1,215
Average of last two		34.4	10.3	.5	53.0	1.8	1,200
Black	2655	36.9	9.6	.6	48.9	4.0	1,115
Cup cakes	2632	16.3	6.6	2.5	73.8	.8	1,600
Doughnuts	2656	56.5	5.1	7.0	30.8	.6	965
Wheat flour, poor quality	2668	11.7	14.8	.8	72.2	.5	1,650
Do	2669	11.8	14.3	.8	72.6	.5	1,650
Do	2670	11.7	13.8	.9	73.1	.5	1,655
Do	2671	11.0	13.9	1.1	73.5	.5	1,670
Average		11.6	14.2	.9	72.8	.5	1,655

THE DIETARY STUDIES.

The following statistics comprise the data obtained in 50 studies of dietaries of people of different nationalities living in the congested "West Side" district of Chicago, and of 3 studies of the dietaries of American families residing in or near Chicago. The 50 dietaries among the foreign element include 4 studies among Italians, 5 studies among French Canadians, 10 studies among orthodox Russian Jews, 6 among liberal or unorthodox Russian Jews, and 25 among Bohemians.

Difficulties encountered.—Among the very ignorant much suspicion was encountered. They could not appreciate the motive of the investigation. The suspicion was of the same character as attends any inspection or attempt to improve their condition, and was not due to the fact that the studies were regarded as an interference with the privacy of home life. In many instances it was impossible by persuasion or by paying for the privilege to induce them to allow dietary studies to be made in their families. In other instances studies were begun, but for one reason or another had soon to be discontinued. Most of the foreign families studied had been more or less under the influence of Hull House, and it is noticeable that those who could be made to understand somewhat of the purpose of the investigation were the most willing to help it on.

In the dietary studies in which the data were collected directly by the observer who made the inquiry the general plan was as follows: Two visits a day were made to the family and the weights were taken of all food materials which had been purchased since the previous visit. The families were instructed to weigh portions of flour and sugar, if there were considerable quantities of these on hand, and to use only from the weighed portions. It was found that in many instances it was difficult to obtain the actual weights of all the foods brought into the house, owing to the fact that they were purchased in such small quantities, some member of the family running out just before the meal to purchase 5 cents' worth of tea or 3 cents' worth of crackers, etc. In such cases it was necessary to rely on the average amount sold for a given sum at the places where the purchases were made.

The families who kept their own statistics had to be depended upon to take the weights of all their food. As previously stated, the accuracy of such figures is doubtful. Many of the families were sensitive about telling their income and expenditures, and the questions had to be confined strictly to the weights of the food materials purchased.

Explanation of tables.—The tabular statement of the results in this bulletin is somewhat more condensed than usual in bulletins of this series. The tables furnish, however, all the original data from which the results were computed, and the additional matter that has sometimes been included can be readily calculated if desired from the data furnished. They summarize the data for the food purchased by each family, and the average cost and nutrients per man per day. The

dietaries are grouped according to the nationality of the families. Preceding the tabular matter in each group are given the statistics of the families—i. e., the members of the family, their relation to each other, the number of meals taken by each, and such other data, including income, as could be obtained. The tables themselves summarize the food purchased per man per day. The first column shows the total amount and cost of the different food materials used during the study. Following the amount and cost is a number in parentheses which refers to Table 16 in the Appendix, showing the percentage composition used in the calculation of the total nutrients contained in each food material. In the remaining columns are given the cost of the food, the weight in grams of the protein, fat, and carbohydrates, and the fuel value per man per day. In order that the table might also show in some degree the amount of nutrients furnished by different classes of food materials, with the cost, these are grouped as follows: The leaner meats, as beef, veal, and mutton; the fatter meats, as pork; poultry; fish; eggs; cheese; butter; milk; cereals and cereal products, as flour, meal, bread, etc.; potatoes and other vegetables; and fruits.

In none of the studies was it found practicable to collect the table and kitchen wastes. The figures in the tables beyond represent, therefore, the food purchased rather than the food actually consumed. In the majority of cases the waste was doubtless small, in many instances perhaps none at all. In similar studies among the poor of New York City it was found that the waste was very small in amount, varying in the thirteen instances in which it was determined from little or nothing to 6 per cent of the total protein and 5.8 of the total fuel value, and averaging 2 per cent of both protein and fuel value.

STUDIES AMONG ITALIAN FAMILIES.

It is unusually difficult to obtain access to the homes of the Italians and gain permission to conduct dietary studies. Many families, after having consented to allow such studies to be made, refused to carry the dietary further than the first meal or day. Out of a large number of studies undertaken, only four were carried to a satisfactory close. These were conducted under the direct supervision of those carrying on the investigation.

Some peculiarities were observed in the food habits of the Italians. In correspondence concerning these studies the following statements are made:

The Italian oil, wine, and cheese, which even the poorest family uses, are all imported, and of course expensive. These articles are comparatively cheap in Italy, and the people grow accustomed to their use. They consume a great deal of macaroni, which is now fortunately made in this country. They use very little milk, and have comparatively little idea of the use and value of indigenous vegetables and other foods.

We have almost never succeeded in getting an Italian to go to one of the county hospitals or other institutions, largely because he dreads the change of food, and

insists that he would starve. On the rare occasion in which an Italian has gone to a hospital, the great complaint upon his return is of the strange food, and he spreads a horror of it among his neighbors. This dread of American food prevents, more or less, the Italians from obtaining employment under any but Italian padrones, who not infrequently impose upon their helplessness. The narrow range, so to speak, in their food really embarrasses their growth in every direction, and no pains have ever been taken to adapt their tastes to the more easily and cheaply secured foods in the American cities.

The statistics of the families studied are as follows:

DIETARY STUDY NO. 53

This study was made with three brothers, aged 30, 23, and 16 years, respectively. The oldest brother was a cleaner in a saloon, the second a bootblack, while the youngest kept house for the three. Their income, which was irregular, was at least \$7 per week. They paid \$6 per month rent for three light rooms. During the dietary study, in addition to the food, 5 cents' worth of tea was consumed.

The study began June 13, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Two men	41
Boy about 16 years old (21 meals \times 0.8 meal of man), equivalent to ..	17
Total number of meals taken equivalent to	58
Equivalent to 1 man 19 days.	

DIETARY STUDY NO. 54.

This study was made with a family consisting of a man, his wife, and a child 6 months old. The man was unemployed. The family paid \$6 per month rent for two light rooms on the third floor over a saloon. During the period of investigation 35 cents' worth of coffee was consumed in addition to the food.

The study began June 1, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Man	21
Woman (21 meals \times 0.8 meal of man), equivalent to	17
Child 6 months (21 meals \times 0.3 meal of man), equivalent to	6
Total number of meals taken equivalent to	44
Equivalent to 1 man 15 days.	

DIETARY STUDY NO. 55.

This family consisted of the father and mother, a married daughter and her husband, and child 2 years old. The father was unemployed, and the son-in-law, usually employed in a candy shop, was out of work at the time. The mother was sick, and during the study consumed 25 cents' worth of brandy each day. They paid \$8 per month rent for four rooms, three of which were light. In addition to the food 20 cents' worth of tea was consumed.

The study began June 1, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Two men	42
Two women (42 meals \times 0.8 meal of man), equivalent to	34
Child 2 years old (21 meals \times 0.3 meal of man), equivalent to	6
Total number of meals taken equivalent to	82
Equivalent to 1 man 27 days.	

DIETARY STUDY NO. 56.

This family consisted of the father and mother, and two children aged 5 and 3 years, respectively. The father was a day laborer, but was unemployed during the period of investigation. They paid \$6 per month rent for three basement rooms, dark and out of repair.

The study began June 1, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Man	21
Woman (21 meals \times 0.8 meal of man), equivalent to	17
Two children 3 and 5 years old (42 meals \times 0.4 meal of man), equivalent to	17

Total number of meals taken equivalent to 55
Equivalent to 1 man 18 days.

TABLE 3.—*Dietary studies among Italian families in Chicago.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohy- drates.	Fuel value.
<i>Dietary No. 53.—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Round, 2 lbs., 25 cts. (67); soup meat, 4 lbs., 20 cts. (22)					
Pork: Ham, 1 lb., 10 cts. (29); ham, boiled, 6 ozs., 10 cts. (30); ham sausage, 2½ lbs., 15 cts. (36); lard, 1½ lbs., 8 cts. (113)					
Poultry: Chicken, 2 lbs. 4½ ozs., 25 cts. (129)					
Fish: Herring (fresh), 3 lbs., 20 cts. (116)					
Eggs, 2 lbs. 15½ ozs., 31 cts. (133)					
Cheese, 1 lb., 20 cts. (139)					
Milk, 7 lbs., 21 cts. (44)					
Total animal food					
VEGETABLE FOOD.					
Cereals: Wheat flour, 4 lbs. 14 ozs., 15 cts. (49); rice, 8 ozs., 5 cts. (149); rye bread, 2 lbs., 5 cts. (55); wheat bread, 9½ lbs., 50 cts. (50); macaroni, 6 lbs., 36 cts. (141)					
Sugar, 1 lb., 5 cts. (167)					
Potatoes (pared), 4½ lbs., 10 cts. (191)					
Tomatoes (canned), 6½ lbs., 21 cts. (202)					
Total vegetable food					
Total food					
<i>Dietary No. 54.—Duration, 7 days.</i>					
ANIMAL FOOD.					
Pork: Chops, 2½ lbs., 30 cts. (98); sausage, 1 lb., 10 cts. (111); lard, 3 lbs., 20 cts. (113); olive oil, ¼ lb., 16 cts. (221)					
Fish: Cod (fresh), 2 lbs., 20 cts. (115)					
Eggs, 3½ lbs., 38 cts. (133)					
Butter, ¼ lb., 10 cts. (134)					
Milk, 7 lbs., 21 cts. (44)					
Total animal food					
VEGETABLE FOOD.					
Cereals: Wheat flour, 1½ lbs., 4 cts. (49); wheat bread, 6 lbs. 15½ ozs., 35 cts. (50); noodles, 4 lbs., 32 cts. (141)					
Sugar, 2 lbs. 15½ ozs., 13 cts. (167)					
Potatoes, 9 lbs. 5 ozs., 12 cts. (192)					

TABLE 3.—*Dietary studies among Italian families in Chicago.*—Continued.

[For explanation of numbers in parentheses see Appendix. p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost	Protein.	Fat.	Carbohy- drates.	Fuel value.
<i>Dietary No. 54.—Duration, 7 days—Continued.</i>					
VEGETABLE FOOD—continued.					
Vegetables: Cabbage, 2 lbs., 5 cts. (79); cucum- bers, 2 lbs., 5 cts. (181); lettuce, $\frac{1}{2}$ lb., 5 cts. (184); onions, 1 lb., 5 cts. (185).....	Cents. 1.4	Grams 2	Grams 1	Grams 8	Calories. 50
Fruits: Bananas, 3 lbs., 5 cts. (204); oranges, 12 $\frac{1}{2}$ ozs., 10 cts. (200); olives (dried), 13 $\frac{1}{2}$ ozs., 14 cts. (219).....	2.0	1	2	33	158
Total vegetable food.....	10.0	50	7	414	1,965
Total food.....	21.0	91	171	425	3,705
<i>Dietary No. 55.—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Round, $\frac{1}{2}$ lb., 5 cts. (67).....	.2	2	1	.....	18
Pork: Lard, 1 lb., 8 $\frac{1}{2}$ ozs., 15 cts. (113).....	.5	.....	26	.....	241
Fish: Cod (fresh), 1 lb., 8 cts. (115).....	.3	12	.....	.....	8
Eggs, 2 $\frac{1}{2}$ lbs., 35 cts. (133).....	1.3	5	4	.....	58
Chicken, $\frac{1}{2}$ lb., 15 cts. (139).....	.6	12	5	.....	36
Milk, 7 lbs., 21 cts. (44).....	.8	4	3	6	69
Total animal food.....	3.7	15	37	6	420
VEGETABLE FOOD.					
Cereals: Wheat bread, 24 lbs. 2 ozs., 89 cts. (50); macaroni, 2 $\frac{1}{2}$ lbs., 25 cts. (141).....	3.9	45	4	263	1,300
Sugar, 3 lbs., 5 $\frac{1}{2}$ ozs., 15 cts. (167).....	.6	.....	.....	60	246
Potatoes, 11 lbs., 11 ozs., 17 cts. (182).....	.6	4	.....	39	159
Lentils, 14 ozs., 5 cts. (183).....	.2	4	.....	9	53
Vegetables: Asparagus, 1 $\frac{1}{2}$ lbs., 5 cts. (173); string beans, 14 lbs., 25 cts. (174); cabbage, 1 lb., 5 ozs., 5 cts. (178); lettuce, 3 lbs., 3 ozs., 14 cts. (184); spinach, 1 lb., 10 ozs., 5 cts. (186).....	2.0	7	2	27	157
Total vegetable food.....	7.3	60	6	329	1,895
Total food.....	11.0	75	43	385	2,325
<i>Dietary No. 56.—Duration, 7 days.</i>					
ANIMAL FOOD.					
Pork: Shoulder (fresh), 4 lbs., 26 cts. (165); spare rib, 3 lbs., 9 ozs., 20 cts. (166); lard, 2 lbs., 20 cts. (113); sausage, 1 lb., 8 cts. (111).....	4.1	29	114	.....	1,142
Fish: Cod (fresh), 1 lb., 7 cts. (115).....	.4	5	.....	.....	12
Eggs, 1 $\frac{1}{2}$ ozs., 9 cts. (133).....	.5	12	.....	.....	27
Chicken, 15 ozs., 26 cts. (139).....	1.4	5	7	.....	86
Milk, 7 lbs., 21 cts. (44).....	1.1	6	4	9	98
Total animal food.....	7.5	45	123	9	1,365
VEGETABLE FOOD.					
Cereals: Wheat flour, 12 $\frac{1}{2}$ lbs., 25 cts. (49); maca- roni, 4 lbs., 34 cts. (147).....	3.3	37	4	305	1,513
Potatoes, 2 lbs., 2 ozs., 3 cts. (182).....	.12	4	1	12	27
Vegetables: Cabbage, 9 lbs., 5 ozs., 22 cts. (179).....	1.2	.....	.....	5	27
Total vegetable food.....	4.7	41	5	322	1,625
Total food.....	12.2	86	128	327	2,990
Average of the four dietaries:					
Animal food.....	5.5	44	76	9	1,385
Vegetable food.....	7.5	50	6	322	1,865
Total food.....	13.0	94	82	329	2,600

Discussion of results.—From the figures included in the table it would appear that the families were, on the average, sufficiently nourished. The amount of protein per man per day ranged from 75 to 141 grams, averaging 103 grams. The energy or fuel value of the food ranged from 2,325 to 3,705 calories daily, averaging 3,060 calories. Inasmuch as most of the men in these families were unemployed at the time the studies were made, these amounts were probably ample.

In the following table is shown the comparative amount of protein and energy contained in 10 cents' worth of the more important food materials used at the prices actually paid. The column giving the range of price shows the variation in the amount paid per pound by the different families. The next column, giving the average cost per pound, is obtained by dividing the total amount paid by this group of families for any given food material by the total amount of this material purchased. The protein and energy obtained for 10 cents are calculated by dividing the total protein and energy in the food purchased by the average cost per pound of the material, as obtained in the manner just described, and multiplying this quotient by 10.¹

TABLE 4.—Average cost per pound, and protein and energy contained in 10 cents' worth of some of the more important food materials used by the families of Italians.

Food materials.	Cost per pound.		Number of dietaries in which used.	In 10 cents' worth.	
	Range.	Average.		Protein.	Energy.
	Cents.	Cents.		Grams.	Calories.
Beef, round		12	1	68	715
Beef, soup meat		5	1	190	1,355
Pork, shoulder		6.50	1	73	1,638
Pork, loin		13.25	1	48	1,005
Ham, boiled		26.50	1	32	725
Cod, fresh	7 to 10	8.25	3	55	235
Herring, fresh		6.50	1	74	555
Eggs, 16 to 21 cents, average 18 cents a dozen	10.50 to 14	12	4	51	555
Milk, 6 cents a pound	3 to 3	3	4	51	880
Butter		20	1	.....	1,720
Wheat flour	2 to 3	2.50	3	276	7,105
Rye bread		2.50	1	184	4,715
Wheat bread	3.25 to 5.25	4.75	3	111	3,175
Macaroni and noodles	6 to 10	8	4	69	2,130
Potatoes	1.25 to 1.75	1.50	4	55	2,181
Tomatoes, canned		3.25	1	76	315
Lentils		5	1	214	2,955
Cabbage	2.25 to 3.25	2.75	3	32	550
Oranges		12.25	1	2	125
Bananas		1.50	1	20	1,735

¹The average cost as obtained in the manner just described differs from the average cost as obtained by taking the sum of the prices paid per pound and dividing by the number of families. This is illustrated by the following example from the dietaries of the orthodox Russian Jews described beyond: Radishes were used by three families. The first family obtained 2 pounds for 10 cents, or at the rate of 5 cents per pound. The second family purchased one-half pound for 5 cents, or at the rate of 10 cents per pound. The third family obtained 5 pounds for 10 cents, or at the rate of 2 cents per pound. The three families together obtained $7\frac{1}{2}$ pounds of radishes for 25 cents, or at an average rate of $3\frac{1}{2}$ cents per pound. The average price paid by the three families may also be calculated as $17(10 + 5 + 2) \div 3 = 5\frac{1}{3}$ cents per pound. Inasmuch as the family who paid 2 cents per pound took advantage of the low price and purchased 10 times as much as the family who paid 10 cents per pound, it would seem that the former average ($3\frac{1}{2}$) represents more justly the average price per pound paid.

With the exception of dietary No. 53 little or no beef was used in these dietaries. The chief animal food was pork, lard constituting a large proportion of the total amount. Fresh fish and eggs were consumed in each study.

The chief articles of food were, however, wheat flour, or bread, and macaroni and noodles. Potatoes and legumes also furnished an economical source of nutriment. The green vegetables, such as cabbage, onions, lettuce, etc., and the fruits, furnished but little actual nutriment for the money expended. The prices paid per pound for the principal food materials made them in general quite cheap. Milk cost 6 cents a quart in all cases, fresh beef was purchased at 5 to 10 cents a pound, and fresh pork at 6 to 13 cents a pound. Boiled smoked ham, at 25 cents a pound, as purchased in dietary No. 53, was decidedly expensive food. Eggs cost from 16 to 20 cents a dozen, and while at the former price they may be considered as fairly economical, at the latter price they were expensive. Bread, at 2 to 3 cents a pound, was a very cheap source of nutriment, and at 5 cents a pound, which must be regarded as high, it still forms one of the most economical foods. Wheat flour, at prices ranging from 2 to 3 cents a pound, was, as is almost always the case, the food material which gave the largest return in nutriment for the money expended. Noodles and macaroni, at 8 to 10 cents a pound, were also an important food supply. Fresh cod furnished a fairly economical source of protein but very little energy. Oranges and canned tomatoes were both very expensive as regards sources of nutriment, but bananas, at the price paid (only about 5 cents a dozen), were quite economical food.

STUDIES AMONG FRENCH-CANADIAN FAMILIES.

Comparatively little trouble was experienced in carrying out satisfactory investigations among the French Canadians, and five dietary studies were made. The work was done under the constant supervision of those in charge of the investigations, and the results probably give a reasonably accurate idea of the food purchased by these families. In none of these studies was it found possible to take account of the waste.

The statistics of the families studied are as follows:

DIETARY STUDY NO. 57.

The family consisted of the father, about 40; the mother, about 38; and the son, about 16 years of age. The father was a carriage painter and received \$2.50 per day. The son was out of work. The family occupied 5 light rooms over a store, for which they paid \$12 per month rent.

This study began May 15, 1886, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man	40
Woman (40 meals \times 0.8 meal of man, equivalent to)	32
Boy about 16 years old (40 meals \times 0.8 meal of man, equivalent to)	32

Total number of meals taken equivalent to..... 104
Equivalent to 1 man 35 days.

DIETARY STUDY NO. 58.

The family consisted of the father, about 68, and the mother, about 60 years of age; three sons, aged 22, 19, and 11 years, respectively, and a daughter 16 years old. The income was uncertain, the father being out of work much of the time. When employed he received from \$3 to \$4 per day. They paid \$10 per month rent for six light rooms over a store. During the study, in addition to the food, 52 cents' worth of coffee and 33 cents' worth of tea were consumed.

The study began May 15, 1895, and continued 14 days. The number of meals taken was as follows:

	Meals.
Three men.....	126
Woman (41 meals \times 0.8 meal of man), equivalent to.....	33
Girl 16 years old (42 meals \times 0.7 meal of man), equivalent to.....	29
Boy 11 years old (42 meals \times 0.6 meal of man), equivalent to.....	25

Total number of meals taken equivalent to..... 213
Equivalent to 1 man 71 days.

DIETARY STUDY NO. 59.

The family consisted of the mother, about 60 years of age; a son, 35 years old; a married daughter, 26 years old, and her two children, 5 and 2 years of age. In addition to these, there were three male boarders. The son was weak-minded and did no work. The other men were employed at hard work. The family paid \$15 a month for three light rooms on the third floor. During the study 50 cents' worth of coffee was consumed.

The study began May 15, 1895, and continued 14 days. The number of meals taken was as follows:

	Meals.
Four men.....	168
Two women (80 meals \times 0.8 meal of man), equivalent to.....	64
Two children, 2 and 5 years old (48 meals \times 0.4 meal of man), equivalent to.....	19

Total number of meals taken equivalent to..... 251
Equivalent to 1 man 84 days.

DIETARY STUDY NO. 60.

The family consisted of the father, about 65, and the mother, about 60 years of age; and four sons, respectively 19, 19, 16, and 11 years old. The father was a shoemaker, but was afflicted with dropsy, and earned very little. The sons supported the family. A rent of \$8 a month was paid for four rooms—two dark, and all out of repair. In addition to the food, 50 cents' worth of coffee and 20 cents' worth of tea were consumed.

The study began May 14, 1895, and continued 14 days. The number of meals taken was as follows:

	Meals.
Three men.....	126
Woman (40 meals \times 0.8 meal of man), equivalent to.....	32
Boy 16 years old (42 meals \times 0.8 meal of man), equivalent to.....	34
Boy 11 years old (42 meals \times 0.6 meal of man), equivalent to.....	25

Total number of meals taken equivalent to..... 217
Equivalent to 1 man 72 days.

DIETARY STUDY NO. 61.

The family consisted of the father, about 55, and the mother, about 45 years old; three sons, aged respectively 15, 12, and 6 years, and a child under 2 years of age. The man was a day laborer and earned \$2.50 per day. The oldest son earned \$2.25

per week. The second son was weak-minded, and the third a cripple. The rent paid for six rooms in a high basement was \$10 per month. In addition to the food, 15 cents' worth of coffee, 25 cents' worth of tea, and 10 cents' worth of pickles were consumed.

The study began June 1, 1895, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man.....	42
Woman (42 meals \times 0.8 meal of man), equivalent to.....	34
Boy 15 years old (42 meals \times 0.8 meal of man), equivalent to.....	33
Boy 12 years old (42 meals \times 0.6 meal of man), equivalent to.....	25
Boy 6 years old (42 meals \times 0.5 meal of man), equivalent to.....	21
Child under 2 years old (36 meals \times 0.3 meal of man), equivalent to.....	11
Total number of meals taken equivalent to.....	166
Equivalent to 1 man 55 days.	

TABLE 5.—*Dietary studies among French-Canadian families in Chicago.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohy- drates.	Fuel value.
<i>Dietary No. 57.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Rib roast, 4 lbs., 53 cts. (64); round, 5 lbs. 11 ozs., 62 cts. (66); sirloin, 1½ lbs., 18 cts. (63); liver, 11 ozs., 5 cts. (76). Veal: Neck, 1 lb. 3 ozs., 15 cts. (88)	4.4	29	25		351
Pork: Loin, 8 lbs. 10½ ozs., 99 cts. (100); tenderloin, 4½ lbs., 59 cts. (101); ham, 5 lbs. 15 ozs., \$1 11 (103); lard, 1 lb. 11 ozs., 20 cts. (113)	8.3	41	94		1,042
Eggs, 2½ lbs., 22 cts. (133)	.6	5	3		48
Butter, 5 lbs. 6 ozs., \$1.15 (134)	3.3		58		540
Cheese, 1 lb., 16 cts. (139)	.4	3	4		50
Milk, 17 lbs. 14 ozs., 54 cts. (44)	1.5	8	6	12	138
Cream, 5 lbs. 11 ozs., 39 cts. (136)	1.1	2	14	3	151
Total animal food.....	19.6	88	204	15	2,320
VEGETABLE FOOD.					
Cereals: Buckwheat flour, ½ lb., 6 cts. (145); wheat flour, 13 ozs., 1 ct. (140); wheat bread, 21 lbs. ½ oz., 98 cts. (50); coffee cake, 3 lbs. 14½ ozs., 30 cts. (157); vanilla snaps, 3 lbs. ½ oz., 32 cts. (159); apple pie, 2 lbs. 14½ ozs., 24 cts. (164)	5.5	37	16	242	1,294
Sugar, 11 lbs. 4½ ozs., 52 cts. (167); chocolate, 2½ ozs., 7 cts. (171)	1.7		1	147	612
Potatoes, 20 lbs. 1½ ozs., 44 cts. (191)	1.2	5		47	213
Vegetables: Baked beans, 4 lbs. 10 ozs., 20 cts. (189); string beans, 4 lbs. 5½ ozs., 38 cts. (174); lettuce, ½ ozs., 5 cts. (184); onions, 3 lbs. 15½ ozs., 25 cts. (186); radishes, 15 ozs., 8 cts. (187)	2.7	7	2	23	142
Fruits: Apples, 10 ozs., 4 cts. (200); bananas, 3 lbs., 5 cts. (204); currants (dried), ½ lb., 5 cts. (216); oranges, 2 lbs. 6 ozs., 10 cts. (209); plums, ½ lb., 3c. (211); strawberries, 2 lbs., 18c. (212)	1.4	1	1	11	59
Total vegetable food.....	12.5	50	20	470	2,320
Total food.....	32.1	138	224	485	4,640
<i>Dietary No. 58.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Chopped meat, 1½ lbs., 15 cts. (66); round, 7 lbs., 2 ozs., 69 cts. (67); shoulder, 15 ozs., 8 cts. (72); a hip bone, hind shank, 2 lbs., 5 cts. (72); liver, 2 lbs., 13 cts. (78); dried and smoked, 5 ozs., 4 cts. (87). Mutton: Leg, ½ lb., 7 cts. (94); neck, 5 lbs., 36 cts. (97)	2.2	20	15		222

TABLE 5.—*Dietary studies among French-Canadian families in Chicago—Continued.*

[For explanation of numbers in parentheses see Appendix p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohy- drates.	* Fnel valuc.
<i>Dietary No. 58.—Duration, 14 days—Continued.</i>					
ANIMAL FOOD—continued.					
Pork: Chops, 13½ ozs., 10 cts. (100); sparerib, 6½ lbs., 46 cts. (98); pigs' feet, 1 lb. 6½ ozs., 16 cts. (108); ham, 1 lb. 13 ozs., 26 cts. (104); ham (boiled), 2½ lbs., 45 cts. (30); sausage, 2½ lbs., 25 cts. (111).....	<i>Cents.</i> 2.4	<i>Grams.</i> 14	<i>Grams.</i> 30	<i>Grams.</i>	<i>Calories.</i> 337
Poultry: Chicken, 9 lbs. 11 ozs., \$1.21 (128).....	1.7	9	1	.....	46
Eggs, 13 lbs. 11½ ozs., \$1.20 (133).....	1.7	12	8	.....	124
Butter, 7 lbs. 3 ozs., \$1.33 (134).....	1.9	.....	38	.....	351
Milk, 14 lbs., 43 cts. (44).....	.6	3	2	5	52
Total animal food.....	10.5	58	94	5	1, 135
VEGETABLE FOOD.					
Cereals: Wheat flour, 6 lbs. 9½ ozs., 16 cts. (140); oatmeal, 1 lb. 10½ ozs., 8 cts. (148); wheat bread, 13½ lbs., \$1.18 (151); soda crackers, 3 lbs., 21 cts. (163); apple pie, 1 lb. 10 ozs., 10 cts. (164).....	2.4	17	5	102	534
Sugar, 10 lbs. 7 ozs., 46 cts. (167).....	.6	.....	.....	67	274
Potatoes, 29 lbs. 3½ ozs., 45 cts. (191).....	.6	4	.....	34	156
Vegetables: Wax beans, 1 lb. 2 ozs., 8 cts. (174); onions, 1½ lbs., 5 cts. (185); rhubarb, 3 lbs., 3 cts. (195); radishes, 2 lbs., 10 cts. (194).....	.4	1	.....	2	12
Fruits: Peaches (canned), 2 lbs., 15 cts. (218); strawberries, 3 lbs. 1½ ozs., 28 cts. (212); raisins, 15 ozs., 6 cts. (219).....	.7	.....	1	6	34
Total vegetable food.....	4.7	22	6	211	1, 010
Total food.....	15.2	80	100	216	2, 145
<i>Dietary No. 59.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Round, 9½ lbs., \$1.03 (66); shoulder, 5 lbs. 1 oz., 53 cts. (73); soup bone, 4 lbs. 10 ozs., 30 cts. (71); corned, 5½ lbs., 49 cts. (79). Veal: Chops, 1 lb. 9 ozs., 25 cts. (86); rib, 10 lbs., \$1.13 (90); shoulder, 2 lbs. 2 ozs., 15 cts. (92).....	4.6	39	25	.....	393
Pork: Chops, 12 lbs. 3 ozs., \$1.53 (100); sparerib, 7 lbs. 4½ ozs., 43 cts. (100); pigs' feet, 2 lbs. 5 ozs., 21 cts. (108); bacon, 2½ lbs., 29 cts. (110); ham, 1 lb. 13 ozs., 30 cts. (104); salt pork, 7 lbs. 3 ozs., 80 cts. (106); sausage, 4 lbs. 13 ozs., 48 cts. (111).....	4.8	26	90	.....	944
Fish: Carp, 3 lbs. 3½ ozs., 44 cts. (114); sardines, ½ lb., 8 cts. (125); lobster (canned), 1 lb., 18 cts. (126).....	.8	4	1	.....	26
Eggs, 18 lbs. 1 oz., \$1.72 (133).....	2.1	13	9	.....	137
Butter, 13 lbs. 3 ozs., \$2.59 (134).....	3.1	.....	59	.....	549
Milk, 41 lbs., \$1.23 (44).....	1.5	7	5	12	116
Total animal food.....	16.9	89	189	12	2, 165
VEGETABLE FOOD.					
Cereals: Wheat flour, 21 lbs. 1 oz., 5 cts. (140); wheat bread, 38 lbs., \$1.16 (151); rice, 21 lbs., 14 cts. (149); cake, 3 lbs. 7½ ozs., 20 cts. (156); soda crackers, 2 lbs., 6 cts., 17 cts. (163); sugar cookies, 2 lbs. ½ oz., 30 cts. (161); apple pie, 6½ lbs., 40 cts. (164).....	2.8	26	10	169	893
Sugar, 8 lbs. 10 ozs., 43 cts., (167).....	.5	.....	.....	46	184
Potatoes, 67 lbs. 11½ ozs., \$1.08 (191).....	1.3	8	.....	66	302
Vegetables: Asparagus, 3 lbs., 18 cts. (173); string beans, 1½ lbs., 10 cts. (174); cabbage, 8 lbs., 33 cts. (179); corn (canned), 1 lb. 6 ozs., 10 cts. (200); cucumbers, 3 lbs., 20 cts. (181); lettuce, 3 lbs., 12 cts. (184); onions, 6 lbs., 30 cts. (185); radishes, 1 lb. 5 cts. (194); tomatoes (canned), 5½ lbs., 18 cts. (202).....	1.9	3	1	10	63
Fruits: Strawberries, 3 lbs. 1 oz., 30 cts. (212).....	.4	.....	.....	1	9
Total vegetable food.....	6.9	37	11	292	1, 455
Total food.....	23.8	126	200	304	3, 620

TABLE 5.—*Dietary studies among French-Canadian families in Chicago—Continued.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohy- drates.	Fuel value
<i>Dietary No. 60.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Leg, 2½ lbs., 13 cts. (72); rib, 6 lbs., 67 cts. (64); round, 8½ lbs., \$1.25 (66); shoulder, 3 lbs. 4½ ozs., 12 cts. (73)	Cents 3 0	Grams 21	Grams 19	Grams	Calories. 263
Pork: Chops, 10 lbs. 9 ozs., 95 cts. (98); shoulder, 11 ozs., 9 cts. (105); ham, 7 lbs. 1 oz., \$1.14 (104); boiled ham, 2 lbs. 5 ozs., 54 cts. (30); salt pork (lean ends), 1 lb. 14½ ozs., 11 cts. (107)	3 9	19	46	.....	505
Poultry: Chicken, 6½ lbs., 54 cts. (128)	.8	6	.....	.....	25
Eggs, 7 lbs. 6 ozs., 77 cts. (133)	1.1	6	4	.....	62
Butter, 3 lbs. 7½ ozs., 67 cts. (134)	.9	.....	18	.....	167
Milk, 29 lbs., 76 cts. (44)	1.1	6	5	9	108
Total animal food	10.8	58	92	9	1,130
VEGETABLE FOOD.					
Cereals: Wheat flour, ½ lb., 2 cts. (140); macaroni and noodles, 2 lbs., 16 cts. (141); wheat bread, 28½ lbs., 99 cts. (151); cake, 18 lbs. 4½ ozs., 88 cts. (156); soda crackers, 13 ozs., 6 cts. (163)	2.9	28	12	184	981
Sugar: Brown, 1 lb., 4 cts. (166); granulated, 7½ lbs., 33 cts. (167)	.5	.....	.....	52	213
Potatoes, 32 lbs. 11 ozs., 34 cts. (191)	.5	4	.....	37	168
Vegetables: Onions, 5 lbs. 14½ ozs., 23 cts. (185); radishes, 3 lbs., 10 cts. (194); rhubarb, 5 lbs., 5 cts. (195); tomatoes (canned), 5 lbs., 14 cts. (202); turnips, 5½ lbs., 5 cts. (198)	.8	2	1	8	50
Fruits: Currant jelly, 1 lb., 3 cts. (220); raisins, 1 lb., 5 cts. (219)	.1	.....	.....	8	33
Total vegetable food	4.8	34	13	289	1,445
Total food	15.6	92	105	298	2,575
<i>Dietary No. 61.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Chopped, 5½ lbs., 55 cts. (66); chuck, 3 lbs., 15 cts. (61); round, 8 lbs. 6 ozs., 88 cts. (67); sirloin, 2 lbs., 25 cts. (63); soup meat, 2 lbs. 3 ozs., 22 cts. (24); kidneys (fresh), 2 lbs., 10 cts. (75); liver, 2 lbs. 7 ozs., 10 cts. (76)	4.1	39	23	1	378
Pork: Loin, 9 lbs. 11 ozs., \$1.03 (98); bacon, 11 ozs., 7 cts. (110); ham, 5 lbs., 75 cts. (104); salt pork, 1 lb., 10 cts. (106); sausage, 1½ lbs., 15 cts. (111); ham sausage, 4 lbs., 48 cts. (36); lard, 2 lbs. 2 ozs., 20 cts. (113)	5.1	23	78	.....	820
Fish: Canned salmon, 2 lbs. 6 ozs., 28 cts. (124); sardines, 2 lbs., 29 cts. (125)	1.0	8	4	.....	70
Eggs, 9½ lbs., 90 cts. (133)	1.6	10	7	.....	106
Butter, 3 lbs. 13 ozs., 84 cts. (134)	1.5	.....	26	.....	241
Cheese, 1½ lbs., 20 cts. (139)	.4	2	4	.....	45
Milk, 32 lbs. 6 ozs., 65 cts. (44)	1.2	9	7	14	160
Total animal food	14.9	91	149	15	1,820
VEGETABLE FOOD.					
Cereals: Wheat flour, 1½ lbs., 6 cts. (49); oatmeal, 2 lbs., 8 cts. (148); rice, 1 lb., 5 cts. (149); wheat bread, 28 lbs., \$1 (151); wheat bread (Jumbo), 14 lbs. 7 ozs., 49 cts. (51); bread (one-half rye), 2 lbs. 6 ozs., 7 cts. (53); cup cakes, 10½ lbs., 85 cts. (58); soda crackers, 1 lb., 5 cts. (163); apple pie, 3 lbs., 23 cts. (164)	5.2	52	10	303	1,549
Sugar, 4 lbs. 13 ozs., 24 cts. (167)	.4	.....	.....	40	164
Potatoes, 38 lbs. 5 ozs., 60 cts. (192)	1.1	6	.....	48	222

TABLE 5.—*Dietary studies among French-Canadian families in Chicago—Continued.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohy- drates.	Fuel value.
<i>Dietary No. 61.—Duration, 14 days—Continued.</i>					
VEGETABLE FOOD—continued.					
Vegetables: Canned corn, 2 lbs. 10 ozs., 14 cts. (200); cucumbers, 2 lbs. 2 ozs., 5 cts. (181); lettuce, 2 lbs. 1 oz., 8 cts. (184); onions (green) 4 lbs. 2 ozs., 40 cts. (186); peas (green), 2 lbs., 5 cts. (188); radishes, 2 lbs. 5 ozs., 4 cts. (194); tomatoes (canned), 8½ lbs., 28 cts. (202); turnips, 9 ozs., 5 cts. (198).....	<i>Cents.</i> 2.0 .2	<i>Grams.</i> 3	<i>Grams.</i> 1	<i>Grams.</i> 14	<i>Calories.</i> 80
Fruits: Strawberries, 1 lb., 10 cts. (212).....					
Total vegetable food.....	8.9	61	11	405	2,015
Total food.....	23.8	152	160	420	3,835
Average of the five dietaries:					
Animal food.....	14.5	77	146	11	1,715
Vegetable food.....	7.6	41	12	334	1,650
Total food.....	22.1	118	158	345	3,365

Discussion of results.—There was a considerable variation in the amounts of nutrients contained in the diet of the different families studied. The amount of protein per day varied from 80 to 152 grams and averaged 118 grams. The range in fuel value was from 2,145 to 4,640 calories, averaging 3,365 calories.

In dietaries Nos. 58 and 60 the amount of nutrients in the daily food was rather meager for people at ordinary labor. The income of both of these families was small, and in No. 58 the man was frequently unemployed. The other families apparently had abundant nourishment, although this would depend largely upon the character of their work, whether moderate or severe.

In the following table is shown the comparative amounts of protein and energy contained in 10 cents' worth of some of the more important food materials used at the prices actually paid. The data in this table were computed as explained on page 19.

TABLE 6.—*Average cost per pound, and protein and energy contained in 10 cents' worth of some of the more important food materials used by the families of French Canadians.*

Food materials.	Cost per pound.		Number of dietaries in which used.	In 10 cents' worth.	
	Range.	Average.		Protein.	Energy.
	<i>Cents.</i>	<i>Cents.</i>		<i>Grams.</i>	<i>Calories.</i>
Beef, rib.....	11 to 13.25	12	2	51	960
Beef, round.....	9.75 to 10.	10	5	75	790
Pork, loin.....	7.50 to 10.50	9.50	4	74	1,550
Ham, smoked.....	14.25 to 16.50	15.50	5	38	1,050
Eggs.....	8 to 10	9	5	64	690
Butter.....	18.50 to 22	20	5	.....	1,750
Milk.....	3	3	5	57	975
Wheat flour.....	1.25 to 4	2.75	5	208	6,430
Wheat bread.....	3 to 8.75	4.75	5	111	3,030
Pastry (pies, cake, etc.).....	4.75 to 8.75	6.75	5	38	2,265
Crackers.....	5 to 7.50	6.50	4	69	2,790
String beans.....	6.75 to 8.75	8	3	12	285
Potatoes.....	.75 to 1.25	1.25	5	60	2,375
Onions.....	4 to 10	5.50	5	12	375
Tomatoes (canned).....	2.75 to 3.50	3	3	17	325

Wheat flour and wheat bread furnished by far the largest amount of protein and energy for 10 cents, but the bread was only one-half as economical as the flour in this respect. It is interesting to note in this connection that in 14 days five families, equivalent to one man 321 days, consumed but 30 cents' worth of flour, as compared with \$5.10 worth of bread and \$3.19 worth of pastry, such as pie and cake. This pastry was, at the average price paid, far more costly than the bread, the amount of protein in 10 cents' worth being but one-third that obtained in bread for the same expenditure. The meats furnished reasonably cheap sources of nutrients, as did also potatoes. Eggs were rather expensive food. The most expensive foods purchased in any amounts were string beans, onions, and tomatoes. The total expenditure for these three materials amounted to \$2.39, and the total amount of nutrients obtained was less than one-half that obtained in the 30 cents' worth of flour. A certain amount of such green vegetables is desirable and perhaps necessary. It is worthy of note that the two families who could least afford such foods (Nos. 58 and 60) consumed but small quantities of them.

STUDIES AMONG FAMILIES OF ORTHODOX RUSSIAN JEWS.

Six dietary studies (Nos. 63-68) were made in which the statistics were collected by the families themselves and four (Nos. 62, 113, 114, and 115) in which the statistics were collected by the observers in charge of the investigations. The Russian Jews are very careful to purchase only such meat as is permitted by their ecclesiastical laws. The same care is exercised in its preparation. No especial care was observed in the purchase and preparation of vegetables, fruits, and other materials falling outside this religious prescription.

The characteristic food materials, such as beef, veal, and mutton, were sampled and analyzed in connection with these studies. As explained on p. 10, Jewish butchers slaughter in a particular manner. The composition of the meat does not, however, appear to vary materially from similar cuts of meat as ordinarily slaughtered. The samples of beef chuck and clod and cross ribs contained a rather lower percentage of protein and a higher percentage of fat than are ordinarily found in similar cuts. The samples of "flanken," or plate, on the other hand, were rather more lean than the average, although the three samples taken varied widely in the proportion of protein and fat.

The beef fat used in the studies was all taken from the fore quarter of the animal. The hind quarter is never eaten, and consequently beef tallow, i. e., kidney fat, is never used. The composition of this beef fat was assumed to be the same as that of ordinary suet or tallow. The orthodox Jews purchased their chickens alive and killed and dressed them according to their own customs. A comparatively small amount of fat is consumed by the Jews. All of the families studied had resided in this country less than five years.

The statistics of the studies are as follows:

DIETARY STUDY NO. 62.

The family consisted of the husband, about 25, and the wife, about 20 years of age, and one boarder (woman). The man was a pretzel peddler. They paid \$8 a month for the rent of four rooms on the first floor. Two of these rooms were light and two dark.

This study began June 11, 1895, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man	42
Two women (56 meals \times 0.8 meal of man), equivalent to	45
Total number of meals taken equivalent to	87
Equivalent to 1 man 29 days.	

DIETARY STUDY NO. 63.

The family consisted of the father, about 55, the mother, about 50 years of age; two daughters of 16 and 13 years, and one son 14 years old. The total earnings of the family were from \$15 to \$16 per week. They paid \$10.50 a month rent for four basement rooms.

This study began April 23, 1895, and continued 26 days. The number of meals taken was as follows:

	Meals.
Man	78
Woman (78 meals \times 0.8 meal of man), equivalent to	62
Boy 14 years old (78 meals \times 0.8 meal of man), equivalent to	62
Girl 16 years old (78 meals \times 0.7 meal of man), equivalent to	55
Girl 13 years old (78 meals \times 0.6 meal of man), equivalent to	47
Total number of meals taken equivalent to	304
Equivalent to 1 man 101 days.	

DIETARY STUDY NO. 64.

The family consisted of the father, about 41, and the mother, about 40 years of age; two daughters, aged about 16 and 13 years, and two men boarders. The elder daughter was a waist finisher. The rooms occupied were four in number and very dark. During the time covered by the study pickles and condiments to the value of 47 cents were consumed in addition to the foods recorded in the table.

The study began April 21, 1895, and continued 14 days. The number of meals taken was as follows:

	Meals.
Three men	126
Woman (42 meals \times 0.8 meal of man), equivalent to	34
Girl about 16 years old (42 meals \times 0.7 meal of man), equivalent to	29
Girl about 13 years old (42 meals \times 0.6 meal of man), equivalent to	25
Total number of meals taken equivalent to	214
Equivalent to 1 man 71 days.	

DIETARY STUDY NO. 65.

The family consisted of father, mother, one son, and one daughter, all adults. The father was out of work. The son and daughter earned \$8.50 per week. The family occupied four rooms, for which they paid \$10 per month rent.

The study began April 17, 1895, and continued 33 days. The number of meals taken was as follows:

	Meals.
Two men	198
Two women (198 meals \times 0.8 meal of man), equivalent to	158
Total number of meals taken equivalent to	356
Equivalent to 1 man 119 days.	

DIETARY STUDY NO. 66.

The family consisted of the father, about 36, and the mother, about 35 years old; a girl of 9 years, and three sons aged, respectively, 7 years, 2 years, and 8 months. A woman boarded with the family. They were very poor, and lived in four rooms in a dark, unhealthful basement, for which they paid \$7 per month rent. The man worked as a polisher. Besides the food materials enumerated in the table, expenditures were made for what may be called "food accessories," as follows: "Pop," i. e., bottled soda water, 19 cents; tea, 19 cents; horse-radish, 16 cents; vinegar, 5 cents; pepper, 7 cents; baking powder, 15 cents; beer, 5 cents; brandy, 5 cents.

The study began April 16, 1895, and continued 21 days. The number of meals taken was as follows:

	Meals.
Man	63
Two women (126 meals \times 0.8 meal of man), equivalent to	101
Two children, 7 and 9 years old (126 meals \times 0.5 meal of man), equivalent to	63
Two children, under 2 years old (126 meals \times 0.3 meal of man), equivalent to	38
Total number of meals taken equivalent to	265
Equivalent to 1 man 88 days.	

DIETARY STUDY NO. 67.

The family consisted of the father, 35, and the mother, 28 years of age; four sons aged, respectively, 9, 7, and 5 years, and 4 weeks; and two daughters of 11 and 2 years. The income varied from \$7 to \$8 per week. Nine dollars per month rent was paid for four rooms, one of which was dark. The expenditure for food accessories during the period covered by the study was as follows: "Pop" (bottled soda water), 6 cents; beer, 20 cents; tea, 15 cents; coffee, 15 cents; horse-radish, 6 cents; vinegar, 3 cents; yeast, 11 cents.

The study began April 17, 1895, and continued 26 days. The number of meals taken was as follows:

	Meals.
Man	78
Woman (78 meals \times 0.8 meal of man), equivalent to	62
Girl 11 years old (78 meals \times 0.6 meal of man), equivalent to	47
Two boys, 7 and 9 years old (156 meals \times 0.5 meal of man), equivalent to	78
Two children, 2 and 5 years old (156 meals \times 0.4 meal of man), equivalent to	62
Child under 2 months, equivalent to	23
Total number of meals taken equivalent to	350
Equivalent to 1 man for 117 days.	

DIETARY STUDY NO. 68.

The subjects of this study were three women and three boys, the latter being, respectively, 17, 14, and 11 years of age. The family occupied four light, rear rooms, for which they paid \$8 per month rent. At the time of the study the total income was not over \$8 per week. Deducting the rent from this amount, the remainder would pay only about one-half of the reported cost of food.

The study began May 15, 1895, and continued 14 days. The number of meals taken was as follows:

	Meals.
Boy 17 years old	42
Three women (126 meals \times 0.8 meal of man), equivalent to	101
Boy 14 years old (42 meals \times 0.8 meal of man), equivalent to	34
Boy 11 years old (42 meals \times 0.6 meal of man), equivalent to	25
Total number of meals taken equivalent to	202
Equivalent to 1 man 67 days.	

DIETARY STUDY NO. 113.

This family consisted of the father, about 45 years of age, the mother, not far from 40 years old, a girl of 6, and an infant 6 months old. The man was a coat maker and earned about \$10 per week. They paid \$9 per month for the rent of the four rooms in which they lived. These were situated on the second floor, front, and were all light, but were very dirty. The woman was considered a good cook.

The study began October 22, 1895, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man	42
Woman (42 meals \times 0.8 meal of man), equivalent to	34
Girl 6 years old (42 meals \times 0.5 meal of man), equivalent to	21
Infant 6 months old, equivalent to	12

Total number of meals taken equivalent to 109

Equivalent to 1 man 36 days.

DIETARY STUDY NO. 114.

The family consisted of a man, 23, and his wife, 20 years of age, and a child about a year old. The income was \$7 to \$7.50 per week; the rent \$7 per month. They are described as "shiftless and filthy." They occupied four back rooms on the second floor.

The study began October 22, 1895, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man	42
Woman (42 meals \times 0.8 meal of man), equivalent to	34
Child about 1 year old (42 meals \times 0.3 meal of man), equivalent to	12

Total number of meals taken equivalent to 88

Equivalent to 1 man 29 days.

DIETARY STUDY NO. 115.

The family consisted of a man about 50 years of age, his wife of about the same age, and three children, a woman of 20, a boy of 15, and a girl of 14 years. The girl was weak minded. A man and three women boarded with the family. Their ages ranged from 20 to 25 years. The head of the family earned \$8, the grown daughter \$6, and the son \$1.25 per week. Ten dollars and a half per month was paid for the rent of four rooms in a high basement.

The study began October 22, 1895, and continued 14 days. The number of meals taken was as follows:

	Meals.
Two men	63
Five women (210 meals \times 0.8 meal of man), equivalent to	168
Boy 15 years old (42 meals \times 0.8 meal of man), equivalent to	34
Girl 14 years old (42 meals \times 0.7 meal of man), equivalent to	29

Total number of meals taken equivalent to 294

Equivalent to 1 man 98 days.

TABLE 7.—*Dietary studies among orthodox Russian Jew families in Chicago.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbo- hydrates.	Fuel value.
<i>Dietary No. 62.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Clod and cross ribs, 8½ lbs., 85 cts. (5); chuck, 7½ lbs., 75 cts. (3); plate, 1½ lbs., 15 cts. (7); beef fat, 14 ozs., 9 cts. (77).....	Cents. 6.4	Grams. 42	Grams. 58	Grams.	Calories. 712
Fish: Carp, 2 lbs. 13 ozs., 14 cts. (114); herring (smoked) 4 ozs., 2 cts. (122).....	.5	6	1	.....	34
Eggs, 6 lbs. 6 ozs., 42 cts. (133).....	1.4	13	9	.....	137
Butter, 2 lbs. 6 ozs., 50 cts. (134).....	1.7	.....	31	.....	286
Cheese: Cottage, ½ lb., 3 cts. (137); schweitzer, 4 ozs., 9 cts. (138).....	.4	4	3	.....	44
Milk, 18½ lbs., 57 cts. (44).....	2.0	10	7	15	168
Cream, sour, 1½ lbs., 9 cts. (136).....	.3	1	4	1	46
Total animal food.....	12.7	76	113	16	1,430
VEGETABLE FOOD.					
Cereals: Barley, ¾ lb., 6 cts. (144); wheat flour, 2 lbs., 5 cts. (49); oatmeal, 9 ozs., 2 cts. (148); rice, ¾ lb., 4 cts. (149); rye bread, 9 lbs. 11 ozs., 38 cts. (55); wheat bread, 14 lbs. 13 ozs., 75 cts. (50).....	4.5	46	4	256	1,275
Sugar, 7 lbs., 31 cts. (167).....	1.1	.....	.....	110	450
Potatoes, 5 lbs. 7 ozs., 6 cts. (192).....	.2	1	.....	13	57
Vegetables: Beets, ½ lb., 2 cts. (177); cabbage, 1 lb. 10 ozs., 3 cts. (179); lettuce 10 ozs., 5 cts. (184); onions, 3 lbs. 5 cts. (185); peas (fresh), 14 ozs., 10 cts. (189); radishes, 2 lbs., 10 cts. (194); spin- ach, 1 lb. 3 ozs., 5 cts. (196); tomatoes (fresh), 2½ lbs., 10 cts. (197).....	1.7	3	.....	12	61
Fruits: Gooseberries, 1½ lbs., 10 cts. (213); lem- ons, 1 lb. 12 ozs., 8 cts. (208); oranges, 2 lbs., 8 cts. (209).....	.9	1	1	7	42
Total vegetable food.....	8.4	51	5	398	1,885
Total food.....	21.1	127	118	414	3,315
<i>Dietary No. 63¹.—Duration, 26 days.</i>					
ANIMAL FOOD.					
Beef: Clod and cross ribs, 13½ lbs., \$1.30 (5); chopped meat, 9 ozs., 6 cts. (66); chuck, 39½ lbs., \$3.91 (1); wienerwurst sausage, 4 lbs., 40 cts. (13).....	5.6	37	47	.....	588
Poultry: Chicken, 4 lbs. 3 ozs., 65 cts. (128).....	.6	3	.....	.....	12
Fish: Carp, 15 lbs., 75 cts. (114); perch (fresh water), 1 lb., 5 cts. (114); herring (smoked), 1 lb. 13 ozs., 15 cts. (122).....	.9	11	1	.....	55
Eggs, 7 lbs. 7 ozs., \$1.07 (133).....	1.1	4	3	.....	44
Butter, 3 lbs. 8 ozs., \$1.06 (134).....	1.1	.....	13	.....	121
Cheese, 1 lb. 11 ozs., 9 cts. (139).....	.1	2	3	.....	36
Milk, 39 lbs., \$1 (44).....	1.0	6	4	9	98
Cream (sour), 5 lbs., 30 cts. (136).....	.3	.....	4	1	41
Total animal food.....	10.7	63	75	10	945
VEGETABLE FOOD.					
Cereals: Rye flour, 23 lbs., 46 cts. (150); wheat flour, 8 lbs., 24 cts. (49); rice, 5 ozs., 2 cts. (149); rye bread, 20½ lbs., 44 cts. (55); wheat bread, 13½ lbs., 70 cts. (53).....	1.9	30	2	190	920
Sugar, 20 lbs., 90 cts. (167).....	.9	.....	.....	90	369
Potatoes, 26 lbs., 33 cts. (192).....	.3	2	.....	18	82
Vegetables: Carrots, 6½ lbs., 10 cts. (180); onions, 3 lbs., 13 cts. (185); radishes, ½ lb., 5 cts. (194).....	.3	.....	.....	3	12
Fruits: Apples, 10 lbs., 15 cts. (203); jelly, 2 lbs., 13 cts. (220); lemons, 1 lb. 10 ozs., 2 cts. (208); prunes, 2 lbs., 16 cts. (217); raisins, 2 lbs., 10 cts. (219).....	.5	1	1	23	107
Total vegetable food.....	3.9	33	3	324	1,490
Total food.....	14.6	96	78	334	2,485

¹ Statistics kept by the family. See p. 9.

TABLE 7.—*Dietary studies among orthodox Russian Jew families in Chicago—Continued.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbo- hydrates.	Fuel value.
<i>Dietary No. 64¹.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Shoulder clod and cross ribs, 28 lbs., \$2.66 (5); chuck, 28 lbs., \$2.66 (3); weinerwurst sausage, 1 lb., 10 cts. (13).....	<i>Cents.</i> 7.6 1.7	<i>Grams.</i> 55 6	<i>Grams.</i> 61 1	<i>Grams.</i>	<i>Calories.</i> 793 34
Poultry: Chicken, 7 lbs. \$1.18 (128).....	.....	.....	.....	.....	.....
Fish: Carp, 5 lbs., 25 cts. (114); herring (fresh), 1 lb., 10 cts. (116).....	.....	.....	.....	.....	.....
Eggs, 8 lbs. 9 ozs., 84 cts. (133).....	.....	.....	.....	.....	.....
Butter, 4 lbs., \$1.10 (134).....	.....	.....	.....	.....	.....
Cheese (cottage) 3 lbs., 18 cts. (137).....	.....	.....	.....	.....	.....
Milk, 40 lbs., \$1 (44).....	.....	.....	.....	.....	.....
Cream (sour), 1 lb., 5 cts. (136).....	.....	.....	.....	.....	.....
Total animal food.....	14.2	89	99	13	1,340
VEGETABLE FOOD.					
Cereals: Wheat flour 3 lbs., 8 cts. (49); rice, 2 lbs., 10 cts. (149); wheat bread, 55 lbs., \$2.75 (53); cake 5 lbs., 50 cts. (156).....	.....	.....	.....	.....	.....
Sugar, 11 lbs., 80 cts. (167).....	.....	.....	.....	.....	.....
Potatoes, 33 lbs., 35 cts. (192).....	.....	.....	.....	.....	.....
Beans (dried), 4 lbs., 25 cts. (176).....	.....	.....	.....	.....	.....
Vegetables: Onions 12 lbs., 23 cts. (185).....	.....	.....	.....	.....	.....
Fruits: Apples, 10 lbs., 15 cts. (203); oranges and lemons, 6 lbs., 23 cts. (209); prunes, 1 lb., 10 cts. (217).....	.....	.....	.....	.....	.....
Total vegetable food.....	7.8	63	8	375	1,870
Total food.....	22.0	152	107	388	3,210
<i>Dietary No. 65¹.—Duration, 33 days.</i>					
ANIMAL FOOD.					
Beef: Shoulder clod and cross ribs, 8½ lbs., 88 cts. (5); chuck, 25 lbs., \$2.43 (3); shoulder steak, 2 lbs., 20 cts. (44). Veal: Breast, 15 lbs., 3 ozs., \$1.50 (9).....	.....	.....	.....	.....	.....
Poultry: Chicken, 15 lbs 5 ozs., \$2.40 (128).....	.....	.....	.....	.....	.....
Fish: Carp, 18 lbs., 15 ozs., 90 cts. (114); perch, 6½ lbs., 33 cts. (114); whitefish, 1 lb., 7 ozs., 15 cts. (121); herring (smoked), 1 lb., 6 ozs., 14 cts. (122); sardines, ½ lb., 8 cts. (125).....	.....	.....	.....	.....	.....
Eggs, 26 lbs. 9 ozs., \$2.22 (133).....	.....	.....	.....	.....	.....
Butter, 7½ lbs., \$2.10 (134).....	.....	.....	.....	.....	.....
Cheese: Cottage, 14 lbs. 6 ozs., 70 cts. (137); cream, ½ lb., 8 cts. (139); schweitzer, ½ lb., 10 cts. (138).....	.....	.....	.....	.....	.....
Milk, 35 lbs., 90 cts. (44).....	.....	.....	.....	.....	.....
Cream (sour), 8 lbs., 40 cts. (136).....	.....	.....	.....	.....	.....
Total animal food.....	13.0	88	75	8	1,090
VEGETABLE FOOD.					
Cereals: Wheat flour, 20 lbs., 15 ozs., 50 cts. (49); rice, 4 lbs., 21 cts. (149); rye bread, 38 lbs., 79 cts. (55); wheat bread, 24½ lbs., \$1.08 (53); baker's cake, 7 lbs., 35 cts. (58).....	.....	.....	.....	.....	.....
Sugar, 3 lbs., 15 cts. (167).....	.....	.....	.....	.....	.....
Potatoes, 7 lbs., 10 cts. (192).....	.....	.....	.....	.....	.....
Fruits: Apples, 45 lbs., 57 cts. (203); oranges, 33 lbs., \$1.31 (209); prunes, 1 lb., 10 cts. (217); raisins, 1 lb., 4 cts. (219); strawberries, 1 lb., 10 cts. (212).....	.....	.....	.....	.....	.....
Total vegetable food.....	4.5	43	4	268	1,310
Total food.....	17.5	131	79	276	2,400

¹ Statistics kept by the family. See p. 9.

TABLE 7.—*Dietary studies among orthodox Russian Jew families in Chicago—Continued.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbo- hydrates.	Fuel value.
<i>Dietary No. 66¹.—Duration, 21 days.</i>					
ANIMAL FOOD.					
Beef: Chuck, 18½ lbs., \$2.21 (3); flauken (plate), 1 lb., 12 cts. (7); beef fat, 1½ lbs., 17 cts. (77)	<i>Cents.</i> 2.8	<i>Grams.</i> 12	<i>Grams.</i> 20	<i>Grams.</i>	<i>Calories.</i> 235
Fish: Carp, 11½ lbs., 58 cts. (114); herring (smoked), 5 ozs., 3 cts. (122)	.7	8	1	-----	42
Eggs, 5 lbs. 12 ozs., 52 cts. (133)	.6	4	3	-----	45
Butter, 4 lbs., \$1.12 (134)	1.3	-----	17	-----	158
Cheese (cottage), 6 lbs. 3 ozs., 30 cts. (137)	.3	12	6	-----	105
Milk, 17 lbs., 51 cts. (44)	.6	3	2	4	48
Cream (sour), 3½ lbs., 16 cts. (136)	.2	-----	3	1	32
Total animal food	6.5	39	52	5	665
VEGETABLE FOOD.					
Cereals: Rye flour, 13 lbs., 26 cts. (150); rice, 1½ lbs., 9 cts. (149); rye bread, 66 lbs., \$1.98 (55); wheat biscuits, 5 lbs., 27 cts. (152)	2.9	43	4	252	1,247
Sugar, 21½ lbs., \$1.05 (167)	1.2	-----	-----	111	455
Potatoes, 32 lbs., 41 cts. (192)	.5	3	-----	25	115
Lima beans (dried), 2½ lbs., 15 cts. (175)	.2	2	-----	9	45
Vegetables: Onions, 3½ lbs., 17 cts. (185)	.2	-----	-----	1	4
Fruits: Apples, 1 lb., 5 cts. (203); lemons, ½ lb., 3 cts. (208); jelly, 1 lb., 3 cts. (220); raisins, ½ lb., 3 cts. (219)	.1	-----	-----	6	24
Total vegetable food	5.1	48	4	404	1,800
Total food	11.6	87	56	409	2,555
<i>Dietary No. 67¹.—Duration, 26 days.</i>					
ANIMAL FOOD.					
Beef: Brisket, 9½ lbs., 95 cts. (5); chuck, 23 lbs., 2 ozs., \$2.30 (3)	2.8	17	20	-----	256
Poultry: Chicken, 8 lbs., \$1.33 (128)	1.1	5	-----	-----	20
Eggs, 8½ lbs., 72 cts. (133)	.6	4	3	-----	44
Butter, 9 ozs., 16 cts. (134)	.1	-----	2	-----	19
Cheese (cottage), 1½ lbs., 9 cts. (137)	.1	2	1	-----	17
Milk, 45 lbs., \$1.35 (144)	1.2	6	4	9	99
Total animal food	5.9	34	30	9	455
VEGETABLE FOOD.					
Cereals: Rye flour, 8 lbs. 10 ozs., 16 cts. (150); wheat bread, 21 lbs., 53 cts. (49); rice, 1½ lbs., 8 cts. (149); rye bread, 53 lbs., \$1.06 (55); wheat bread, 18½ lbs., 60 cts. (53); cake (baker's), 5 lbs., 27 cts. (58); soda crackers, 1 lb., 5 cts. (163)	2.4	46	3	253	1,253
Sugar, 18½ lbs., 93 cts. (167)	.8	-----	-----	71	291
Potatoes, 10 lbs., 14 cts. (192)	.1	1	-----	6	28
Vegetables: Beets, 1 lb., 2 cts. (177); onions, 1 lb., 1 ct. (185)	-----	-----	-----	1	4
Fruits: Apples, 10 lbs., 10 cts. (203); bananas, 6 lbs., 15 cts. (204); oranges and lemons, 4 lbs., 14 cts. (209); prunes, 2½ lbs., 30 cts. (217); raisins, ½ lb., 3 cts. (219)	.6	1	1	16	79
Total vegetable food	3.9	48	4	347	1,655
Total food	9.8	82	34	356	2,110
<i>Dietary No. 68¹.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Brisket, 3½ lbs., 34 cts. (5); chopped meat, 3 lbs., 40 cts. (66); chuck, 13½ lbs., \$1.34 (3); plate, 1½ lbs., 17 cts. (7); round, 12 lbs. 6 ozs., \$1.29 (67); corned, 2 lbs., 20 cts. (79); sausage (wiener-wurst), 4½ lbs., 45 cts. (13). Veal: Breast, 4 lbs., 34 cts. (9)	7.0	51	44	1	623

¹Statistics kept by the family. See p. 9.

TABLE 7.—*Dietary studies among orthodox Russian Jew families in Chicago—Continued.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbo- hydrates.	Fuel value.
<i>Dietary No. 63.¹—Duration, 14 days—Continued.</i>					
ANIMAL FOOD—continued.					
Poultry: Chicken, 9 lbs. 7 ozs., \$1.41 (128).....	<i>Cents.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Calories.</i>
Fish: Carp, 14½ lbs., 85 cts. (114); salmon (canned), 2 lbs., 36 cts. (37); herring (smoked), 8 lbs. 10 ozs., 80 cts. (122); sardines, 1 lb., 19 cts. (125).....	2.2	10	1	.....	50
Eggs, 8 lbs. 10 ozs., 75 cts. (133).....	3.4	29	9	.....	203
Butter, 3½ lbs., \$1.10 (134).....	1.2	8	6	.....	89
Cheese: Cream, 2½ lbs., 50 cts. (139); cottage, 1 lb., 5 cts. (137).....	1.7	.....	20	.....	186
Milk, 22 lbs., 60 cts. (44).....	.8	7	7	.....	94
Cream (sour), 4½ lbs., 40 cts. (136).....	.9	5	4	8	91
	.6	1	6	1	64
Total animal food.....	17.8	111	97	10	1,400
VEGETABLE FOOD.					
Cereals: Buckwheat flour, 1 lb., 5 cts. (145); wheat flour, 6 lbs., 15 cts. (140); oatmeal, 2½ lbs., 13 cts. (148); rice, 2½ lbs., 15 cts. (149); rye bread, 16 lbs., 47 cts. (55); wheat bread, 17½ lbs., 80 cts. (53); cake (baker's), 26 lbs., \$1.25 (58); soda crackers, 2 lbs., 20 cts. (163); ginger snaps, 4 lbs., 25 cts. (160); macaroni, 1 lb., 10 cts. (141); apple pie, 6 lbs., 40 cts. (164).....	6.1	54	16	374	1,904
Sugar, 18 lbs., 90 cts. (167).....	1.4	.....	.....	126	517
Potatoes, 87 lbs. 15 ozs., \$1.55 (192).....	2.4	11	1	94	440
Vegetables: Onions, 6 lbs., 35 cts. (185); radishes, 5 lbs., 10 cts. (194); tomatoes (fresh), 6 lbs., 30 cts. (197).....	1.1	1	.....	7	33
Fruits: Apples, 55 lbs., \$1.10 (203); apples (dried), 1 lb., 10 cts. (214); bananas, 2 lbs., 10 cts. (204); cranberries, 4 lbs., 25 cts. (206); oranges and lemons, 23 lbs., 50 cts. (209); raisins, 1 lb., 5 cts. (210); prunes, 6 lbs., 45 cts. (217).....	3.9	4	4	97	451
Total vegetable food.....	14.9	70	21	698	3,345
Total food.....	32.7	181	118	708	4,745
<i>Dietary No. 113.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Chuck, 10 lbs. 4 ozs., 80 cts. (2); beef fat, 10 ozs., 4 cts. (77). Veal: Breast, 2 lbs., 16 cts. (8); chuck, 2 lbs. 3 ozs., 18 cts. (10); rib, 2 lbs., 16 cts.; shoulder, 2 lbs., 16 cts. (12); wiener- wurst, 1 lb., 15 cts. (13).....	4.6	36	26	.....	390
Poultry: Chicken, 4 lbs. 4 ozs., 60 cts. (127).....	1.7	12	1	.....	59
Fish: Carp, 4½ lbs., 33 cts. (114); herring (fresh), 2 lbs., 10 cts. (116); herring (smoked), ½ lb., 2 cts. (122); whitefish (smoked), 1 lb., 9 cts. (122).. Eggs, 3½ lbs., 48 cts. (133).....	1.5	14	3	.....	85
Butter, 2 lbs. ½ oz., 59 cts. (134).....	1.3	6	5	.....	71
Milk, 12½ lbs., 46 cts. (38).....	1.6	.....	21	.....	195
Cream (sour), 1 lb., 5 cts. (136).....	1.3	8	8	12	157
	.1	.....	2	1	23
Total animal food.....	12.1	76	66	13	980
VEGETABLE FOOD.					
Cereals: Wheat flour, 9 lbs., 27 cts. (47); oatmeal, 1 lb. 11 ozs., 8 cts. (148); rye bread, 8 lbs. 6 ozs., 22 cts. (55); wheat bread, 1 lb. 11 ozs., 6 cts. (52); rolls, 9 lbs. 1 oz., 45 cts. (154).....	3.0	44	10	229	1,212
Sugar, 10 lbs. 15 ozs., 62 cts. (167).....	1.7	.....	.....	138	565
Potatoes, 19 lbs. 1 oz., 10 cts. (192).....	.3	4	.....	37	168
Lima beans (dried), ½ lb., 3 cts. (175).....	.1	1	.....	4	20
Vegetables: Onions, 2 lbs. 15 ozs., 3 cts. (185).....	.1	1	.....	3	16
Fruits: Apples, 15 lbs., 23 cts. (203); raisins, 4 ozs., 3 cts. (219).....	.7	1	1	26	119
Total vegetable food.....	5.9	51	11	437	2,100
Total food.....	18.0	127	77	450	3,080

¹ Statistics kept by the family. See p. 9.

TABLE 7.—*Dietary studies among orthodox Russian Jew families in Chicago—Continued.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbo- hydrates	Fuel value.
<i>Dietary No. 114.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Breast, $\frac{1}{2}$ lb., 4 cts. (5); chuck, 17 lbs. 9 ozs., \$1.76 (2); beef fat, 1 lb., 6 cts. (77).....	Cents. 6.4	Grams. 34	Grams. 43	Grams.	Calories. 539
Poultry: Chicken, 4 lbs., 58 cts. (127).....	2.0	14	1	.....	67
Fish: Carp, 6 lbs. 3 ozs., 43 cts. (114); herring (smoked), $\frac{1}{2}$ lb., 2 cts. (122).....	1.5	13	1	.....	62
Eggs, 1 lb. 8 ozs., 20 cts. (133).....	.7	3	2	.....	31
Butter, $\frac{3}{4}$ lbs., 98 cts. (134).....	3.4	.....	45	.....	418
Milk, 13 lbs. 14 ozs., 35 cts. (38).....	1.2	7	8	11	148
Total animal food.....	15.2	71	100	11	1,265
VEGETABLE FOOD.					
Cereals: Wheat flour, 10 ozs., 2 cts. (46); barley, 1 lb., 4 cts. (144); rye bread, 18 lbs. 8 ozs., 56 cts. (55); wheat bread, 4 lbs. 1 oz., 15 cts. (52).....	2.7	43	3	205	1,044
Sugar, 6 lbs. 13 oz., 37 cts. (167).....	1.3	.....	.....	107	439
Potatoes, 9 lbs., 5 cts. (192).....	.2	2	.....	21	94
Vegetables: Onions, 5 lbs., 5 cts. (185); turnips, 3 lbs. 6 ozs., 3 cts. (198).....	.3	2	.....	10	49
Fruits: Apples, 22 lbs., 22 cts. (203).....	.7	2	1	43	194
Total vegetable food.....	5.2	49	4	386	1,820
Total food.....	20.4	120	104	397	3,085
<i>Dietary No. 115.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Breast, $\frac{3}{4}$ lbs., 34 cts. (4); chuck, 29 lbs. 14 ozs., \$2.98 (3); plate, $\frac{9}{16}$ lbs., 95 cts., (6); round, $\frac{5}{8}$ lbs., 55 cts. (67); soup meat, $\frac{2}{3}$ lbs., 7 cts. (24); beef fat, 1 lb. 6 ozs., 8 cts. (77); veal, ribs, $\frac{1}{4}$ lb., 5 cts. (11); wienerwurst, 3 lbs. 7 ozs., 35 cts. (13).....	5.5	36	49	.....	603
Poultry: Goose, $7\frac{1}{2}$ lbs., 90 cts. (130); turkey, $5\frac{1}{2}$ lbs., 59 cts. (131).....	1.5	8	17	.....	191
Fish: Carp, 5 lbs., 35 cts. (114); perch, $1\frac{1}{4}$ lbs., 10 cts. (114).....	.4	4	.....	.....	16
Eggs, 3 lbs. 9 ozs., 45 cts. (133).....	.4	2	2	.....	27
Butter, 3 lbs. 6 ozs., 94 cts. (134).....	1.0	.....	13	.....	121
Cheese (cottage), $1\frac{1}{2}$ lbs., 8 cts. (137).....	.1	3	1	.....	22
Milk, 54 lbs., \$2.70 (38).....	2.8	8	9	13	170
Cream (sour), 5 lbs., 26 cts. (136).....	.3	1	4	1	45
Total animal food.....	12.0	62	95	14	1,195
VEGETABLE FOOD.					
Cereals: Farina, $\frac{1}{2}$ lb., 4 cts. (143); wheat flour, 26 lbs., 78 cts. (45); rice, $1\frac{1}{2}$ lbs., 10 cts. (149); rye bread (black), $26\frac{1}{2}$ lbs., 66 cts. (57); rolls, $19\frac{1}{2}$ lbs., 39 cts. (154).....	2.0	39	7	206	1,070
Sugar, $15\frac{1}{2}$ lbs., 94 cts. (167).....	1.0	.....	.....	73	299
Potatoes, 47 lbs. 10 ozs., 25 cts. (192).....	.2	4	.....	34	156
Vegetables: Carrots, 5 lbs., 5 cts. (180); onions, 15 lbs., 15 cts. (184).....	.2	1	.....	3	17
Fruits: Apples, $37\frac{1}{2}$ lbs., 58 cts. (203); grapes, 10 lbs., 15 cts. (207); jelly, 2 lbs., 10 cts. (220); lemons, 7 ozs., 3 cts. (208); raisins, 2 ozs., 2 cts. (219).....	.9	1	1	34	153
Total vegetable food.....	4.3	45	8	350	1,695
Total food.....	16.3	107	103	364	2,890
Average of the ten dietaries:					
Animal food.....	12.0	71	80	11	1,080
Vegetable food.....	6.4	50	7	399	1,905
Total food.....	18.4	121	87	410	2,985

Discussion of results.—Ten studies were made of the food consumption of the orthodox Jews. Of these 4 (Nos. 62, 113, 114, 115) were conducted under the direct supervision of those in charge of the investigations and in 6 (Nos. 63–68) the statistics of food consumption were furnished by the families themselves. The averages of the results obtained in the first case show that the food furnished 120 grams of protein and 3,095 calories of energy per day at a cost of 19 cents, while in the second class the food contained 121 grams of protein and 2,920 calories of energy and cost 18½ cents per day. These results are practically identical, and seem to indicate that the data obtained from statistics kept by the families themselves were fairly accurate.

Taking into account all of the studies, the protein per man per day ranged from 82 to 181 grams, averaging 121 grams, and the energy from 2,110 to 4,745 calories, averaging 2,985 calories. The minimum diet is much smaller than is usually found in dietaries of American families with a moderate amount of work. The maximum diet was considerably larger than would, according to our present knowledge, be required by persons with ordinary work. It must not be forgotten that these figures represent food purchased rather than food actually consumed. It is quite probable that in the instance where the diet was small there was little or no waste, but that in other instances there may have been a considerable amount of waste, which would make the actual nutrients consumed less than the amounts here given. In similar studies elsewhere the waste was found to vary from practically nothing to 5 or 6 per cent of the food.

In the following table is shown the comparative amount of protein and energy contained in 10 cents' worth of some of the more important materials used, at the prices actually paid. The explanations of the table are similar to those for Table 4 on page 19.

TABLE 8.—Average cost per pound, and protein and energy contained in 10 cents' worth of some of the more important food materials used by the families of orthodox Russian Jews.

Food materials.	Cost per pound.		Number of dietaries in which used.	In 10 cents' worth.	
	Range.	Average.		Protein.	Energy.
	<i>Cents.</i>	<i>Cents.</i>		<i>Grams.</i>	<i>Calories.</i>
Beef brisket, breast, or clod and cross ribs ..	8 to 10.50	9.75	8	85	1,195
Beef, chuck ..	7.75 to 12	9.25	10	50	835
Beef, flanken or plate ..	9.75 to 12	10	4	58	1,430
Beef, round ..	10 to 10.50	10.25	2	80	840
Vienna sausage (wienerwurst) ..	10 to 10.25	10	4	126	1,475
Carp ..	4.75 to 7	5.50	9	105	485
Chicken ..	14 to 17	15.50	7	47	230
Eggs, 13 to 21 cents, average 16 cents dozen ..	6.50 to 14	10.50	10	57	615
Butter ..	21 to 31.50	28	10	.....	1,230
Milk, 5 to 10 cents, average 6 cents quart.	2.50 to 5	3	10	49	885
Wheat flour ..	2.50 to 3	2.75	9	215	5,830
Rye flour ..	1.75 to 2	2	3	162	8,265
Wheat bread ..	3.25 to 5.25	4.50	8	126	2,605
Rye bread ..	2 to 4	2.50	9	182	4,555
Potatoes ..	.50 to 1.75	1.25	10	66	2,670
Radishes ..	2 to 10	3.25	3	14	325
Tomatoes, fresh ..	4 to 5	4.75	2	8	225
Onions ..	1 to 5.75	2.25	9	28	760
Apples ..	1 to 5	1	9	12	1,665
Prunes ..	7.50 to 12	9	5	10	1,310
Oranges and lemons ..	1.25 to 6.75	3.25	8	8	480

The most economical food materials purchased by these families, as far as a source of nutrients is concerned, were wheat and rye flours and wheat and rye bread. Among the more expensive materials were carp, eggs, and chicken. The tomatoes, radishes, and oranges furnished but little actual nutriment for the money expended. The amount expended for these latter materials was, however, small.

The total number of meals taken by the 10 families studied was equivalent to 1 man 753 days. The total amount expended for flour and bread, both wheat and rye, was \$17, or about 13 per cent of the total expended for food, which was about \$128. The amount of nutrients contained in this quantity of flour and bread was nearly one-third the total nutrients furnished by the food. The animal food furnished 58 per cent of the protein, 35 per cent of the energy, and the cost was 66 per cent of the total. The largest item of expense among these families was for beefsteak, which forms 15 per cent of the total. The protein thus obtained was about 11 per cent of the total. Had beef breast, brisket, or cross ribs, as the cut was variously called, been purchased instead, there would have been a considerable gain of protein and energy.

STUDIES AMONG FAMILIES OF UNORTHODOX OR LIBERAL RUSSIAN JEWS.

Six dietary studies were made in families of Russian Jews who were liberal in their belief and did not follow the prescribed rules and customs of the orthodox Jews. Their diet was not governed, in any way, by the Jewish law. It is, however, interesting to note that pork was used in but 2 of the 6 studies, and that, aside from the chopped beef, which may have come from any part of the animal, the cuts of meat were largely confined to the fore quarter.

Three of the 6 families studied (Nos. 69-71) had resided in this country less than five years, 2 (Nos. 72 and 73) more than ten years. In one case the length of residence in the United States was not ascertained. All but 1 of the studies (No. 116) were made by the families themselves.

The statistics of the studies are as follows:

DIETARY STUDY NO. 69.

This study was made with a man of about 40 and his wife about 28 years of age. The man was a teacher. His wife earned \$6 per week as a shirt folder. They occupied an apartment of five rooms, but sublet a portion for the use of a club.

The study began April 28, 1895, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man.....	42
Woman (42 meals \times 0.8 meal of man), equivalent to.....	34
Total number of meals taken equivalent to.....	76
Equivalent to 1 man 25 days.	

DIETARY STUDY NO. 70.

The family here studied consisted of a man and his wife, each about 29 years old, a child of 3 years, and an infant of 3 months. They occupied 3 rooms for which they paid \$8 per month rent. The man was a street peddler and earned about \$6 per week.

The study began May 13, 1895, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man.....	42
Woman (42 meals \times 0.8 meal of man), equivalent to	34
Child 3 years old (42 meals \times 0.4 meal of man), equivalent to	17
Infant 3 months old.....	13

Total number of meals taken equivalent to..... 106
Equivalent to 1 man 35 days.

DIETARY STUDY NO. 71.

This family consisted of a bicycle maker, his wife, and three children, two boys of 4 and 2 years of age, and an infant. The family occupied five rooms, of which three were light and two dark. The man earned about \$13 per week and paid \$7.50 per month for rent. Beverages and condiments to the value of \$1.33 (beer, "pop," and pickles being especially mentioned) were consumed during the period covered by the study.

The study began April 7, 1895, and continued 13 days. The number of meals taken was as follows:

	Meals.
Man.....	39
Woman (39 meals \times 0.8 meal of man), equivalent to.....	31
Two boys, 4 and 2 years old (78 meals \times 0.4 meal of man), equivalent to.....	31
Child under 2 years of age (39 meals \times 0.3 meal of man), equivalent to	12

Total number of meals taken equivalent to..... 113
Equivalent to 1 man 38 days.

DIETARY STUDY NO. 72.

The family consisted of the father, about 45, and the mother, about 40 years of age; three sons, aged 19, 14, and 10 years, respectively; and four daughters, aged 1, 4, 8, and 12 years, respectively. The father was a musician, but his income was not stated. Five dollars a month rent was paid for five rooms.

The study began April 27, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Two men.....	42
Woman (21 meals \times 0.8 meal of man), equivalent to.....	17
Boy 14 years old (21 meals \times 0.8 meal of man), equivalent to.....	17
Girl 12 years old (21 meals \times 0.6 meal of man), equivalent to.....	13
Boy 10 years old (21 meals \times 0.6 meal of man), equivalent to.....	13
Girl 8 years old (21 meals \times 0.5 meal of man), equivalent to.....	10
Girl 4 years old (21 meals \times 0.4 meal of man), equivalent to.....	8
Girl 1 year old (21 meals \times 0.3 meal of man), equivalent to.....	6

Total number of meals taken equivalent to..... 126
Equivalent to 1 man 42 days.

DIETARY STUDY NO. 73.

The family consisted of the mother, her two children, a son and a daughter, both over 16 years of age, and one boarder, a man. The mother was a necktie maker and earned from \$10 to \$15 a week. She kept the two children in school. They occupied four rooms, paying \$9 a month rent.

The study began April 21, 1895, and continued 28 days. The number of meals taken was as follows:

	Meals.
Two men	168
Two women (168 meals \times 0.8 meal of man), equivalent to	134

Total number of meals taken equivalent to..... 302
Equivalent to 1 man 101 days.

DIETARY STUDY NO. 116.

This family consisted of the father, about 45, and the mother, about 40 years of age; three daughters, aged 18, 16, and 14 years, respectively; and three sons, aged 1, 2, and 4 years, respectively. All were in poor health. The mother never let the boys play out of doors for fear they would take cold. They were puny, sickly, and irritable. The daughters were born in Russia. The elder had been employed in a candy factory, but was idle at the time of the study. The second girl earned \$5 a month. The total income of the family was about \$1 a day. They paid \$7 a month rent for three rooms on the first floor. The quantities of pork and sausage consumed by this family were extremely large.

The study began October 29, 1895, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man	42
Two women (81 meals \times 0.8 meal of man), equivalent to	65
Two girls, 16 and 14 years old (46 meals \times 0.7 meal of man), equivalent to	32
Two boys, 4 and 2 years old (84 meals \times 0.4 meal of man), equivalent to	34
Boy 1 year old (42 meals \times 0.3 meal of man), equivalent to	13

Total number of meals taken equivalent to..... 186
Equivalent to 1 man 62 days.

TABLE 9.—*Dietary studies among unorthodox Russian Jew families in Chicago.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohydrates.	Fuel value.
<i>Dietary No. 69.¹—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Brisket, 10½ lbs., \$1.07 (5); chuck, 6 lbs., 60 cts. (61); shoulder steak, 1 lb., 12 cts. (74); dried and smoked, 2 lbs., 20 cts. (80). Veal: Breast, 2½ lbs., 25 cts. (12).....	<i>Cents.</i> 9.0	<i>Grams.</i> 74	<i>Grams.</i> 53	<i>Grams.</i>	<i>Calories.</i> 796
Pork: Sausage, ½ lb., 5 cts. (111).....	.2	1	4	.....	41
Poultry: Chicken, 7 lbs. 11 ozs., \$1.20 (128).....	4.8	21	2	.....	105
Fish: Carp, 4 lbs., 20 cts. (114); salmon (fresh), 2 lbs., 30 cts. (118); herring, 6 ozs., 6 cts. (122).....	2.5	15	4	.....	99
Eggs, 2 lbs. 2½ ozs., 21 cts. (133).....	.8	5	4	.....	58
Butter, 2 lbs., 54 cts. (134).....	2.2	.....	30	.....	279
Milk, 28 lbs., 84 cts. (44).....	3.4	17	13	27	302
Total animal food	22.9	133	110	27	1,680

¹ Statistics kept by the family. See p. 9.

TABLE 9.—*Dietary studies among unorthodox Russian Jew families in Chicago—Cont'd.*

[For explanation of numbers in parentheses, see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohy- drates.	Fuel value.
<i>Dietary No. 69.¹—Duration, 14 days—Continued.</i>					
VEGETABLE FOOD.					
Cereals: Wheat flour, 4 lbs., 12 cts. (49); rye bread, 13 lbs., 36 cts. (55); wheat bread, 4½ lbs., 25 cts. (53); rice, 2 lbs. 5 ozs., 14 cts. (149); cake, 9½ lbs., 51 cts. (156).....	5.5	60	17	361	1,885
Sugar, 3 lbs., 20 cts. (167).....	.8	.....	.....	54	222
Potatoes, 4 lbs., 7 cts. (192).....	.3	4	.....	11	62
Lima beans (dried), ½ lb., 3 cts. (175); peas (dried), ½ lb., 3 cts. (190).....	.2	1	.....	11	49
Fruits: Oranges, 6 lbs., 29 cts. (209).....	1.2	1	.....	8	37
Total vegetable food.....	8.0	66	17	445	2,255
Total food.....	30.9	199	127	472	3,935
<i>Dietary No. 70.¹—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Brisket, 2 lbs., 24 cts. (5); chopped meat, 2 lbs., 24 cts. (66); chuck, 3 lbs., 31 cts. (61); shoulder steak, 4 lbs., 51 cts. (74).....	3.7	24	18	.....	266
Poultry: Chicken, 7 lbs., 74 cts. (123).....	2.1	14	1	.....	67
Eggs, 10 lbs. 12½ ozs., 98 cts. (133).....	2.8	18	13	.....	195
Butter, 3 lbs., 66 cts. (134).....	1.9	.....	32	.....	297
Milk, 53 lbs., \$1.17 (44).....	3.3	23	17	36	400
Total animal food.....	13.8	79	81	36	1,225
VEGETABLE FOOD.					
Cereals: Rye bread, 6 lbs., 12 cts. (55); wheat bread, 18 lbs., 90 cts. (53).....	2.9	38	3	168	873
Sugar, 2 lbs., 11 cts. (167).....	.3	.....	.....	26	107
Potatoes, 4 lbs., 5 cts. (192).....	.1	1	.....	8	37
Vegetables: Radishes, 2 lbs., 13 cts. (194).....	.4	.....	.....	1	4
Fruits: Apples, 8 lbs., 20 cts. (203); oranges, 3 lbs., 10 cts. (209); prunes, 3 lbs., 34 cts. (217); raisins, 1 lb., 5 cts. (219).....	2.0	2	1	48	214
Total vegetable food.....	5.7	41	4	251	1,235
Total food.....	19.5	120	85	287	2,460
<i>Dietary No. 71.¹—Duration, 13 days.</i>					
ANIMAL FOOD.					
Beef: Chopped meat, 4½ lbs., 43 cts. (66); chuck, 6 lbs. 7 ozs., 66 cts. (61); flank, ½ lb., 3 cts. (62); shoulder steak, 5½ lbs., 67 cts. (74); corned, 2 lbs., 20 cts. (79); suet, 2½ lbs., 24 cts. (77); sausage, ½ lb., 3 cts. (13). Veal: Breast, 1½ lbs., 18 cts. (12); chops, 3½ lbs., 42 cts. (87).....	7.5	50	57	.....	735
Fish: Herring (fresh), ½ lb., 8 cts. (116); salmon (canned), 1 lb., 18 cts. (124); sardines, ½ lb., 12 cts. (125).....	1.0	5	3	.....	49
Eggs, 10 lbs. 11½ ozs., 96 cts. (133).....	2.5	17	12	.....	182
Cheese (cottage), 1½ lbs., 9 cts. (137).....	.2	7	3	.....	57
Butter, 2½ lbs., 62 cts. (134).....	1.6	.....	22	.....	205
Milk, 28 lbs., 76 cts. (44).....	2.0	11	8	17	190
Cream (sour), 1 lb. 6 ozs., 12 cts. (136).....	.3	.....	3	1	32
Total animal food.....	15.1	90	108	18	1,450
VEGETABLE FOOD.					
Cereals: Barley, ½ lb., 3 cts. (144); wheat flour, 25 lbs. 9 ozs., 59 cts. (49); rye bread, 16 lbs., 45 cts. (55); wheat bread, ½ lb., 3 cts. (53); crackers (soda), 1 lb., 10 cts. (163); unleavened bread, 3 lbs., 12 cts. (162).....	3.5	69	6	362	1,823
Sugar, 5 lbs., 22 cts. (167); cocoa, ½ lb., 11 cts. (172).....	.9	1	1	61	263
Potatoes, 23 lbs. 2 ozs., 21 cts. (192).....	.6	5	.....	42	192

¹ Statistics kept by the family. See p. 9.

TABLE 9.—*Dietary studies among unorthodox Russian Jew families in Chicago—Cont'd.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohy- drates.	Fuel value.
<i>Dietary No. 70.¹—Duration, 13 days—Continued.</i>					
VEGETABLE FOOD—continued.					
Peas (dried), $\frac{1}{2}$ lb., 4 cts. (190)	.1	2		4	24
Vegetables: Beets, $\frac{1}{2}$ lb., 2 cts. (177); onions (green), 1 lb., 25 cts. (185)	.7			2	8
Fruits: Apples (dried), 1 lb., 10 cts. (214); bananas, $6\frac{1}{2}$ lbs., 12 cts. (204); oranges, $7\frac{1}{2}$ lbs., 26 cts. (209); prunes, $1\frac{1}{2}$ lbs., 16 cts. (217); raisins, $\frac{1}{2}$ lb., 2 cts. (219)	1.7	2	2	35	170
Total vegetable food	7.5	79	9	506	2,480
Total food	22.6	169	117	524	3,930
<i>Dietary No. 72.¹—Duration, 7 days</i>					
ANIMAL FOOD.					
Beef: Brisket, $2\frac{1}{2}$ lbs., 30 cts. (5); chuck, 17 lbs., \$1.70 (61); suet, $\frac{1}{2}$ lb., 4 cts. (77); dried and smoked, $1\frac{1}{2}$ lbs., 30 cts. (80)	5.6	39	29		430
Poultry: Chicken, 3 lbs., 2 ozs., 46 cts. (128)	1.1	5			21
Fish: Carp, 8 lbs., 54 cts. (114); herring (smoked), 5 ozs., 3 cts. (122)	1.4	12	1		59
Eggs, 9 lbs. $5\frac{1}{2}$ ozs., 74 cts. (133)	1.8	13	10		146
Butter, 1 lb., 28 cts. (134)	.7		9		84
Milk, 14 lbs., 35 cts. (44)	.8	5	4	8	90
Total animal food	11.4	74	53	8	830
VEGETABLE FOOD.					
Cereals: Barley, $\frac{1}{2}$ lb., 3 cts. (144); rye flour, 12 lbs., 27 cts. (150); wheat flour, 13 lbs. $12\frac{1}{2}$ ozs., 33 cts. (49); rye bread, 10 lbs., 25 cts. (55); wheat bread, $3\frac{1}{2}$ lbs., 20 cts. (53); cake, 4 lbs., 19 cts. (156)	3.0	49	7	316	1,562
Sugar, 7 lbs., 35 cts. (167)	.8			76	312
Potatoes, 7 lbs. $15\frac{1}{2}$ ozs., 30 cts. (192)	.7	1		13	57
Peas (dried), $\frac{1}{2}$ lb., 5 cts. (190)	.5	3		7	41
Vegetables: Onions, 5 lbs., 19 cts. (185)	.5	1		5	25
Fruits: Apples, 10 lbs., 22 cts. (203); oranges, $\frac{1}{2}$ lb., 2 cts. (209); prunes, $\frac{1}{2}$ lb., 6 cts. (217)	.7	1	1	17	83
Total vegetable food	5.8	55	8	434	2,080
Total food	17.2	129	61	442	2,910
<i>Dietary No. 75.¹—Duration, 28 days.</i>					
ANIMAL FOOD.					
Beef: Chopped meat, 8 lbs., 80 cts. (66); chuck, 56 lbs. $8\frac{1}{2}$ ozs., \$5.60 (61); shoulder steak, 4 lbs., 48 cts. (74); sausage, 1 lb., 10 cts. (13). Veal: Chops, 44 lbs., 60 cts. (87)	7.5	54	35		547
Poultry: Chicken, 6 lbs., 10 ozs., \$1 (128)	1.0	4			17
Fish: Carp, 2 lbs., 14 cts. (114); herring (smoked), 11 ozs., 8 cts. (122); salmon (canned), $1\frac{1}{2}$ lbs., 27 cts. (37); sailines, 1 lb., 20 cts. (125); sturgeon (smoked), 7 lbs. 11 ozs., \$1.20 (123)	1.9	11	7		110
Eggs, 20 lbs. 2 ozs., \$1.78 (133)	1.8	12	8		124
Butter, 7 lbs., \$1.68 (134)	1.7		26		242
Cheese: Cottage, $2\frac{1}{2}$ lbs., 18 cts. (137); Swiss, $\frac{1}{2}$ lb., 12 cts. (138)	.3	5	3		44
Milk, $32\frac{1}{2}$ lbs., 80 cts. (44)	.8	5	4	8	91
Total animal food	15.0	91	83	8	1,175
VEGETABLE FOOD.					
Cereals: Barley, 2 lbs., 8 cts. (144); buckwheat flour (self-raising), 10 lbs. $\frac{1}{2}$ oz., 50 cts. (146); wheat flour, 1 lb., 3 cts. (49); rye bread, 9 lbs., 27 cts. (55); wheat bread, $30\frac{1}{2}$ lbs., \$1.65 (53); cake, 6 lbs., 48 cts. (156); noodles, 1 lb., 5 cts. (141)	3.0	32	5	175	895

¹ Statistics kept by the family. See p. 9.

TABLE 9.—*Dietary studies among unorthodox Russian Jew families in Chicago—Cont'd.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohy- drates.	Food value.
<i>Dietary No. 73.—Duration, 23 days—Continued.</i>					
VEGETABLE FOOD—continued.					
	<i>Cents.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Calories.</i>
Sugar, 1 lb., 5 cts. (167).....	.1	-----	-----	56	230
Potatoes, 7½ lbs., 16 cts. (192).....	.2	1	-----	5	25
Peas (dried), 1 lb., 3 cts. (190).....	-----	1	-----	3	17
Vegetables: Onions, 3 lbs., 15 cts. (185); rhubarb, 2½ lbs., 12 cts. (195); radishes, 4 lbs., 26 cts. (194) ..	.5	1	-----	2	13
Fruits: Apples, 10½ lbs., 25 cts. (203); oranges, 22½ lbs., 83 cts. (209); prunes, ¼ lb., 10 cts. (217).....	1.2	1	1	15	75
Total vegetable food	5.0	36	6	256	1,255
Total food	20.0	127	89	264	2,430
<i>Dietary No. 116.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Round, 1 lb., 9 cts. (67); shoulder, 1 lb. 10 ozs., 8 cts. (74); soup meat, 8½ lbs., 58 cts. (25); soup meat, 2 lbs., 8 cts. (23); bologna sausage, 1 lb., 5 cts. (33); frankfort, 6 lbs., 48 cts. (34).	3.4	37	36	-----	486
Veal: Breast, 3½ lbs., 28 cts. (8).....					
Pork: Chuck and shoulder, 24½ lbs., \$1.38 (99); head-cheese, 1 lb., 5 cts. (32); salt sides, 2½ lbs., 8 cts. (31); bacon, 1 lb., 10 cts. (31); olive oil, 1 lb., 7 cts. (113).....	2.0	21	56	-----	607
Fish: Salmon (canned), 2 lbs. 2 ozs., 30 cts. (37); sardines, 10 ozs., 8 cts. (125); sturgeon (smoked), ½ lb., 9 cts. (123); sucker, 2½ lbs., 11 cts. (119); trout, 4 lbs., 36 cts. (120); whitefish (smoked), 4 lbs. 6 ozs., 44 cts. (122).....					
Eggs, 11 lbs. 6 ozs., \$1.62 (133).....	2.2	15	9	-----	145
Butter, 2½ lbs., 73 cts. (134).....	2.6	11	8	-----	119
Cheese (cottage), 6 lbs., 30 cts. (137).....	1.2	-----	15	-----	139
Milk, 36½ lbs., 91 cts. (44).....	.5	16	7	-----	131
Cream (sour), 1 lb., 5 cts. (136).....	1.5	9	7	14	159
	.1	-----	1	-----	9
Total animal food	13.5	109	139	14	1,795
VEGETABLE FOOD.					
Cereals: Barley, 1½ lbs., 6 cts. (144); wheat flour, 13 lbs., 39 cts. (49); buckwheat, 2 lbs., 3 cts. (145); rye bread (black bread), 42 lbs. 6 ozs., 96 cts. (57); rolls, 13 lbs. 11 ozs., \$1.15 (154); cake, 1½ lbs., 8 cts. (156); doughnuts, 1 lb. 11 ozs., 12 cts. (59).....	4.5	56	10	311	1,598
Sugar, 17 lbs. 14 ozs., \$1.01 (167).....					
Potatoes, 27 lbs. 9 ozs., 20 cts. (192).....	1.6	-----	-----	131	537
Vegetables: Beets, 9 lbs. 6 ozs., 10 cts. (177); cab- bage, 1½ lbs., 5 cts. (179); carrots, 12 lbs. 3 ozs., 12 cts. (180); onions, 3½ lbs., 5 cts. (185); sauer- kraut, 2 lbs., 5 cts. (60).....	.3	4	-----	31	144
Fruits: Apples, 57 lbs. 9 ozs., 30 cts. (203); bananas, 6 ozs., 2 cts. (204); lemons, 2 lbs. 4½ ozs., 6 cts. (208); prunes, 2 lbs., 18 cts. (217); jelly, 6 lbs., 24 cts. (220).....	.6	2	1	15	79
	1.3	3	2	88	392
Total vegetable food	8.3	65	13	576	2,750
Total food	21.8	174	152	590	4,545
Average of the six dietaries:					
Animal food	15.3	96	96	19	1,365
Vegetable food	6.7	57	9	411	2,000
Total food	22	153	105	430	3,365

¹ Statistics kept by the family. See p. 9.

Discussion of results.—As already stated, all but one of the studies of this group were carried on by the families themselves and there were no means of verifying the statistics. Neither can the results of one study conducted by those in charge of the investigations give trustworthy information concerning the average food consumption of these people. Considering the results of all six studies it would appear that the amount of protein per man per day was larger than is usually found in dietaries of people with moderate exercise, ranging from 120 to 199 grams and averaging 153 grams. The energy of the food was not correspondingly large, ranging from 2,430 to 4,545 calories and averaging 3,365 calories. In other words, these families appear to have used food containing a large proportion of protein as compared with the carbohydrates. The cost per man per day, 22 cents, indicates that considerable judgment was used in the purchase of their food. Had they bought more cereal foods and less meats, eggs, and poultry, the amount of protein in the daily food would have been brought down to more nearly the proper amount, and the diet would have been materially cheapened.

In the following table, which shows the average cost per pound and the amount of protein and energy in 10 cents' worth of some of the more important food materials used, it will be seen that the flour, bread, and beans were very economical sources of both protein and energy. The chopped beef and the brisket and chuck were as economical sources of protein as are usually found among the animal foods. Fish and eggs were among the most expensive animal foods; onions, radishes, and oranges were among the most expensive vegetable foods.

TABLE 10.—Average cost per pound, and protein and energy contained in 10 cents' worth of some of the more important food materials used by the families of unorthodox Russian Jews.

Food materials.	Cost per pound.		Number of dietaries in which used.	In 10 cents' worth.	
	Range.	Average.		Protein.	Energy.
	Cents.	Cents.		Grams.	Calories.
Beef, chopped meat.....	10 to 12	10.75	3	87	905
Beef, brisket.....	10.75 to 12	10.75	3	77	1,080
Beef, chuck.....	10 to 10.25	10	5	71	720
Chicken.....	14.75 to 16	14	4	48	235
Carp.....	5 to 7	6.25	3	91	420
Salmon.....	14 to 19	17	4	50	550
Eggs, 12 to 21 cents, average 15 cents, a dozen	8 to 14.25	9.75	6	61	660
Butter.....	22 to 29.25	26.25	6	.....	1,365
Milk, 4.5 to 6 cents, average 5 cents a quart..	2.25 to 3	2.50	6	61	1,055
Wheat flour.....	2.25 to 6	3.75	5	251	6,520
Rye bread.....	2 to 3	2.50	6	181	4,600
Wheat bread and rolls.....	4.50 to 8.50	6	6	103	1,550
Pastry (pies, cake, etc.).....	4.75 to 8	6	4	52	2,655
Pease, dried.....	3 to 8	5.50	4	218	3,280
Potatoes.....	1.75 to 3.75	1.75	5	65	2,590
Radishes.....	6.50 to 6.50	6.50	2	7	170
Onions.....	1.50 to 25	8.75	4	13	415
Apples.....	.50 to 2.50	2	4	16	2,260
Prunes, dried.....	9 to 13.25	9.50	5	8	1,030
Oranges.....	3.50 to 4.75	4	4	7	415
Shoulder steak.....	5 to 12.75	10.25	4	65	630
Vienna sausage (wienerwurst).....	10 to 12	10.75	2	122	1,405

The first three families had been in this country less than five years; the others over ten years. The only pronounced difference in the diet of the two classes is found in the large consumption of pork by the family studied in dietary No. 116. From the small amount of data it is impossible to draw any deductions concerning the differences in food consumption between the two classes of liberal Jews or between the two groups of orthodox and liberal Jews.

STUDIES AMONG BOHEMIAN FAMILIES.

This group of dietaries consists of 25 studies made among Bohemian families in circumstances varying from the very poor to the fairly well to do. In the larger number of cases the statistics were recorded by the families themselves. Eight families (Nos. 125-127, 142-146) were, however, visited regularly two or more times a day.

In order to ascertain if there was any marked difference in the diet of families recently immigrated to this country as compared with that of families resident in the United States for some years, the studies were divided into groups according to the length of such residence. Thus the families studied in dietaries Nos. 74-78 and No. 80 had lived in this country less than five years; Nos. 81 and 82 between five and ten years; Nos. 83-87 over ten years, and Nos. 88-90 were born in this country of Bohemian parents. The exact length of residence of the remaining families is not stated, but from the statements made by the families it was inferred that in dietaries Nos. 125 and 127 the parents had been resident in this country over ten years, and that in dietaries Nos. 142, 144-146 less than ten years.

The Bohemian families purchased their food at Bohemian markets, but the character of the food did not vary materially from that of similar articles sold at other markets. A piece of liver and a bone is given at Bohemian markets with each piece of beef purchased. The liver usually weighs about a quarter of a pound and the bone about 6 ounces. No more is given with several pounds of beef than with 1 pound. However, at the better markets the meat is sold cheaper in 3 or 4 pound pieces than in 1-pound pieces. Chopped beef and pork is a common article of diet. The butcher has a platter with chopped beef on one side and chopped pork on the other and mixes them as purchased.

The milkmen carry skim milk and cream separately. Among the Bohemians the term milk is applied exclusively to skim milk. They usually buy more or less cream, which is added to the milk. The mixture is called "milk and cream." The amount of cream added depends upon the purse of the purchaser. The figures for the composition of milk used in the following dietaries are the average of eight determinations of fat in cheap Chicago milk.

The minimum amount of fat (1 per cent) was found in milk which sold at 4 cents a quart. So-called whole milk cost 6 cents, and probably did not contain on an average more than $3\frac{1}{2}$ per cent fat. Skim milk cost 3 cents a quart.

The statistics of the studies are as follows:

DIETARY STUDY NO. 74.

The family consisted of the father, mother, and four children ranging from about 15 to about 6 years of age.

The study began May 1, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Man	21
Woman (21 meals \times 0.8 meal of man), equivalent to.....	17
Child about 15 years old (21 meals \times 0.8 meal of man), equivalent to.	16
Child about 12 years old (21 meals \times 0.6 meal of man), equivalent to.	13
Child about 9 years old (21 meals \times 0.5 meal of man), equivalent to.	11
Child about 6 years old (21 meals \times 0.5 meal of man), equivalent to.	10

Total number of meals taken equivalent to 88

Equivalent to 1 man 29 days.

DIETARY STUDY NO. 75.

The family consisted of the father and mother, two sons over 16 years of age, and four children between 6 and 16 years of age. The father was unemployed. The sons earned \$5 per week. The rent was \$6 a month. In addition to the food, 29 cents' worth of coffee, salt, and vinegar was consumed.

The study began May 1, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Three men.....	63
Woman (21 meals \times 0.8 meal of man), equivalent to.....	17
Child about 15 years old (21 meals \times 0.7 meal of man), equivalent to.	15
Two children about 11 and 13 years old (42 meals \times 0.6 meal of man), equivalent to.....	25
Child about 7 years old (21 meals \times 0.5 meal of man), equivalent to.	10

Total number of meals taken equivalent to..... 130

Equivalent to 1 man 43 days.

DIETARY STUDY NO. 76.

The family consisted of the father and mother; three sons, aged, respectively, 19, 10, and 6 years. The father purchased his dinner away from home. In addition to the food, 75 cents' worth of beer, 45 cents' worth of coffee, and 46 cents' worth of other extras, or accessories, were used.

The study began May 8, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Two men	36
Woman (21 meals \times 0.8 meal of man), equivalent to.....	17
Girl 15 years old (21 meals \times 0.7 meal of man), equivalent to.....	15
Boy 10 years old (21 meals \times 0.6 meal of man), equivalent to.....	13
Two children 6 years old (42 meals \times 0.5 meal of man), equivalent to	20

Total number of meals taken equivalent to..... 101

Equivalent to 1 man 34 days.

DIETARY STUDY NO. 77.

The members of the family consisted of the husband, wife, and two children aged 1 year and 3 years, respectively. They paid \$6 a month rent for three rooms. In addition to the food, \$1.40 worth of beer, 10 cents' worth of whisky, and 36 cents' worth of coffee were consumed.

The study began May 12, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Man	21
Woman (21 meals \times 0.8 meal of man), equivalent to	17
Child 3 years old (21 meals \times 0.4 meal of man), equivalent to	8
Child 1 year old (21 meals \times 0.3 meal of man), equivalent to	6

Total number of meals taken equivalent to..... 52
Equivalent to 1 man 17 days.

DIETARY STUDY NO. 78.

The family consisted of the father and mother and four daughters, aged 18, 16, 12, and 8 years, respectively. They also had one boarder—a woman. The weekly income was \$16. During the study, tea, coffee, etc., costing \$1.13 were consumed.

The study began May 17, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Man	21
Three women (63 meals \times 0.8 meal of man), equivalent to	50
Girl 16 years old (21 meals \times 0.7 meal of man), equivalent to	15
Girl 12 years old (21 meals \times 0.6 meal of man), equivalent to	12
Girl 8 years old (21 meals \times 0.5 meal of man), equivalent to	10

Total number of meals taken equivalent to..... 108
Equivalent to 1 man 36 days.

DIETARY STUDY NO. 79.

The family consisted of the father and mother; three daughters, the eldest about 16 years of age, the other two 12 and 8 years, respectively, and a son 4 years old. In addition to the food, 62 cents' worth of tea and coffee, 10 cents' worth of vinegar and salt, and 10 cents' worth of beer were used.

The study began May 17, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Man	21
Woman (21 meals \times 0.8 meal of man), equivalent to	17
Girl about 16 years old (21 meals \times 0.7 meal of man), equivalent to	15
Girl 12 years old (21 meals \times 0.6 meal of man), equivalent to	13
Girl 8 years old (21 meals \times 0.5 meal of man), equivalent to	10
Boy 4 years old (21 meals \times 0.4 meal of man), equivalent to	8

Total number of meals taken equivalent to..... 84
Equivalent to 1 man 28 days.

DIETARY STUDY NO. 80.

This study was made with a family consisting of the father, mother, and 3-year-old child. The father was a teacher and had an income of \$1,000 a year. In addition to the food, 36 cents' worth of tea and coffee, 6 cents' worth of salt and vinegar, and 35 cents' worth of beer were consumed.

The study began May 4, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Man	21
Woman (21 meals \times 0.8 meal of man), equivalent to	17
Child 3 years old (21 meals \times 0.4 meal of man), equivalent to	8

Total number of meals taken equivalent to..... 46
Equivalent to 1 man 15 days.

DIETARY STUDY NO. 81.

This family consisted of the father and mother and six children—three boys, aged 15, 12, and 8 years, and three girls, aged 14, 6, and 3 years, respectively. The father was a peddler. He owned a house and had an income of \$35 a week. Besides the amounts expended for foods enumerated in Table 11, they spent 40 cents for tea and coffee, \$2.05 for beer, 38 cents for fruit, 6 cents for vinegar and salt, and 8 cents for other extras.

The study began May 8, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Man	21
Woman (21 meals \times 0.8 meal of man), equivalent to	17
Boy 15 years old (21 meals \times 0.8 meal of man), equivalent to	17
Girl 14 years old (21 meals \times 0.7 meal of man), equivalent to	15
Boy 12 years old (21 meals \times 0.6 meal of man), equivalent to	13
Two children, 8 and 6 years old (42 meals \times 0.5 meal of man), equivalent to	21
Child 3 years old (21 meals \times 0.4 meal of man), equivalent to	8

Total number of meals taken equivalent to

Equivalent to 1 man 37 days.

DIETARY STUDY NO. 82.

The members of this family were the father, mother, boy 14 years old, girl 7 years old, and a boy 3 years old. The father was a janitor and had no rent to pay. Their income was \$9 a week.

The study began May 6, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Man	21
Woman (21 meals \times 0.8 meal of man), equivalent to	17
Boy 14 years old (21 meals \times 0.8 meal of man), equivalent to	17
Girl 7 years old (21 meals \times 0.5 meal of man), equivalent to	10
Child 3 years old (21 meals \times 0.4 meal of man), equivalent to	8

Total number of meals taken equivalent to

Equivalent to 1 man 24 days.

DIETARY STUDY NO. 83.

This study was made with a man and two women. The man was a manufacturer of soda water and had an income of \$25 a week.

The study began May 6, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Man	21
Two women (42 meals \times 0.8 meal of man), equivalent to	34

Total number of meals taken equivalent to

Equivalent to 1 man 18 days.

DIETARY STUDY NO. 84.

The study was made with a widow and family, consisting of two sons and two daughters over 18 years of age and two young children. The mother had an income of \$19 a week, derived from board paid by her sons and daughters. She paid \$9 a month rent for four rooms. The food accessories used during the study and their cost were as follows: Beer, 50 cents; coffee, 45 cents; tea, 13 cents; vinegar, 5 cents; salt, 2 cents.

The study began May 12, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Two men	42
Three women (63 meals \times 0.8 meal of man), equivalent to.....	50
Two children (42 meals \times 0.6 meal of man), equivalent to.....	25

Total number of meals taken equivalent to 117

Equivalent to 1 man 39 days.

DIETARY STUDY NO. 85.

The family consisted of the father and mother, a son 19 years old, and two children 15 and 7 years old, respectively. They had a weekly income of \$17 and paid \$8 a month for the rent of three rooms.

The study began May 13, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Two men	42
Woman (21 meals \times 0.8 meal of man), equivalent to.....	17
Child 15 years old (21 meals \times 0.8 meal of man), equivalent to.....	17
Child 7 years old (21 meals \times 0.5 meal of man), equivalent to.....	11

Total number of meals taken equivalent to 87

Equivalent to 1 man 29 days.

DIETARY STUDY NO. 86.

The family consisted of the father and mother and six children—three sons aged 20, 14, and 12 years, and three daughters aged 17, 16, and 5 years, respectively. The oldest son was a cripple and the oldest daughter was in poor health. The father was a notary public. The family occupied seven rooms, paying \$16 a month rent. In addition to the cost of the food the following amounts were expended for accessories: Beer, 70 cents; coffee, 45 cents; tea, 20 cents; salt, 2 cents; vinegar, 5 cents.

The study began May 19, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Two men	42
Two women (42 meals \times 0.8 meal of man), equivalent to.....	34
Boy 14 years old (21 meals \times 0.8 meal of man), equivalent to.....	17
Girl 16 years old (21 meals \times 0.7 meal of man), equivalent to.....	15
Boy 12 years old (21 meals \times 0.6 meal of man), equivalent to.....	13
Girl 5 years old (21 meals \times 0.4 meal of man), equivalent to.....	8

Total number of meals taken equivalent to 129

Equivalent to 1 man 43 days.

DIETARY STUDY NO. 87.

The family consisted of the father and mother and five children, 12, 11, 8, 6, and 4 years old, respectively. The man was a tailor with an income of \$9 a week. He owned his home. The following amounts were expended for food accessories: Coffee, 32 cents; beer, 70 cents; tea, 20 cents; yeast, 10 cents; salt, 5 cents; vinegar, 3 cents.

The study began May 15, 1895, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man	42
Woman (42 meals \times 0.8 meal of man), equivalent to	34
Boy and girl, 11 and 12 years old (84 meals \times 0.6 meal of man), equivalent to	50
Two girls, 6 and 8 years old (84 meals \times 0.5 meal of man), equivalent to	42
Girl 4 years old (42 meals \times 0.4 meal of man), equivalent to	17

Total number of meals taken equivalent to 185
Equivalent to 1 man 62 days.

DIETARY STUDY NO. 88.

In this study the family consisted of the husband, wife, and one servant, a woman. The husband was a tailor and his wife a physician, their joint income being about \$15 a week. They occupied five rooms, the rent of which was not stated.

The study began May 20, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Man	21
Two women (42 meals \times 0.8 meal of man), equivalent to	34

Total number of meals taken equivalent to 55
Equivalent to 1 man 18 days.

DIETARY STUDY NO. 89.

In this study the family consisted of a man, his wife, and young child, and one boarder, a woman. The husband was a clerk, and the total weekly income of the family was \$25. They paid \$12 a month rent for five rooms. The food accessories used, together with their cost, were: Beer, 50 cents; coffee, 30 cents; tea, 8 cents; vinegar, 10 cents; spices 7 cents.

The study began May 20, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Man	21
Two women (42 meals \times 0.8 meal of man), equivalent to	34
Child under 2 years old (21 meals \times 0.3 meal of man), equivalent to ..	6

Total number of meals taken equivalent to 61
Equivalent to 1 man 20 days.

DIETARY STUDY NO. 90.

The family consisted of husband, wife, and one boarder, a woman. The man was a furniture varnisher. The income was \$15 a week. They occupied four rooms, paying \$11 a month rent. In addition to the food 30 cents' worth of coffee and 2 cents' worth of salt were consumed.

The study began May 23, 1895, and continued 7 days. The number of meals taken was as follows:

	Meals.
Man	21
Two women (42 meals \times 0.8 meal of man), equivalent to	34

Total number of meals taken equivalent to 55
Equivalent to 1 man 18 days.

DIETARY STUDY NO. 125.

This study was made with a tailor's family, consisting of the father, 43, and the mother, 32 years of age; four daughters, aged 13, 9, 8, and 5 years, respectively; and one son 11 years old. The children were born in this country. The family give a good example of what can be done with a small income by thrift and industry. The father was connected with a building and loan association and owned a 2-story tenement house with basement, upon which there was still a mortgage. The woman did her own baking, summer and winter, and was very neat. She also found time to do some sewing, thus earning a little money. Their combined earnings were about \$9 a week. Rentals amounting to \$26 a month were received, making the actual income at least \$15 or \$16 per week. The four oldest children went to school. Perishable foods were purchased at the smaller markets. All other foods were purchased in large quantities at the large markets. The lard used was from a winter's supply of untried lard, purchased at the rate of 19 pounds for \$1. The beef, round and chuck, was made into soup, and eaten with homemade noodles. The beef rib and the veal were roasted. The pork chops and chopped pork and beef were fried. The food accessories used during the study and their cost were as follows: Coffee, 56 cents; yeast, 15 cents; nutmegs, 2 cents; chowchow, 2 cents; pepper, 2 cents; vinegar, 2 cents; poppy seed, 7 cents.

The study began February 18, 1896, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man	42
Woman (42 meals \times 0.8 meal of man), equivalent to	34
Girl 13 years old (30 meals \times 0.6 meal of man), equivalent to	18
Boy 11 years old (42 meals \times 0.6 meal of man), equivalent to	25
Two girls 8 and 9 years old (84 meals \times 0.5 meal of man), equivalent to	42
Girl 5 years old (42 meals \times 0.4 meal of man), equivalent to	17
Total number of meals taken equivalent to	178
Equivalent to 1 man 59 days.	

DIETARY STUDY NO. 126.

The family consisted of the father, 36 years old; the mother, 27 years old; and three boys aged, respectively, 1, 3, and 4 years. The children were born in this country. For seven months in the year, beginning in May, the father worked in the stock yards, earning \$1.25 a day. At the time of the study he was unemployed. The mother took in washing and earned \$1.50 a week. They occupied three rooms, paying \$5 a month rent. They purchased their food daily at the small markets and paid cash. The food accessories used during the study and their cost were as follows: Coffee, 52 cents; catsup, 15 cents; yeast, 1 cent. The milk used was sampled and found to contain 2 per cent fat.

The study began February 18, 1896, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man	42
Woman (42 meals \times 0.8 meal of man), equivalent to	34
Two boys, 3 and 4 years old (84 meals \times 0.4 meal of man), equivalent to	34
Boy, 1 year old (42 meals \times 0.3 meal of man), equivalent to	12

Total number of meals taken equivalent to 122
 Equivalent to 1 man 41 days.

DIETARY STUDY NO. 127.

The family consisted of the father, 36 years old, the mother, 30 years old, and six children; four girls, 1, 8, 10, and 12 years old, and two boys, 5 and 3 years of age. The children were born in this country. The father was a calciminer. They had been in much better circumstances and seemed unwilling to have their actual earnings known. The family occupied three rooms on the second floor of a house situated in the rear of a building fronting on the street. The rooms were light and the opportunity for ventilation good. The rent was \$5 a month. The food was purchased in small quantities and for cash. Coffee was used at nearly all of the meals, and beer occasionally. The food accessories used during the study and their cost were as follows: Coffee, 44 cents; beer, 30 cents; tea, 20 cents; yeast, 5 cents. The milk used was sampled and found to contain 3 per cent fat.

The study began February 13, 1896, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man	40
Woman (42 meals \times 0.8 meal of man), equivalent to	34
Two girls, 10 and 12 years old (84 meals \times 0.6 meal of man), equivalent to	50
Girl 8 years old (42 meals \times 0.5 meal of man), equivalent to	21
Two children, 3 and 5 years old (84 meals \times 0.4 meal of man), equivalent to	34
Child 1 year old (42 meals \times 0.3 meal of man), equivalent to	13
Total number of meals taken equivalent to	192
Equivalent to 1 man 64 days.	

DIETARY STUDY NO. 142.

The members of this family were the father, 35, and the mother, 31 years old; two daughters, 12 and 6, and one son 5 years old. The youngest child was born in this country. The father was employed in a box factory, and received \$1 a day. He was idle one month during the winter. His earnings would average \$5 a week. A rent of \$5 a month was paid for three poorly lighted rooms in the rear of a brick cottage. A striking incident in this dietary was the amount of tripe used and its extreme cheapness. The family had heard of a special sale of tripe, and had laid in a supply for many days. The lard used was from the winter's supply and cost about 6 cents a pound and the labor of rendering it. The scraps, or crackling, had been saved when the lard was rendered and was used in cooking potatoes, etc. Perishable foods were purchased by the day. The food accessories used during the study and their cost were as follows: Coffee, 37 cents; beer, \$1.40; yeast, 1 cent; pepper, 3 cents; poppy seed, 3 cents.

The study began March 12, 1896, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man	42
Woman (42 meals \times 0.8 meal of man), equivalent to	34
Girl 12 years old (42 meals \times 0.6 meal of man), equivalent to	25
Girl 6 years old (42 meals \times 0.5 meal of man), equivalent to	21
Boy 5 years old (42 meals \times 0.4 meal of man), equivalent to	17
Total number of meals taken equivalent to	139
Equivalent to 1 man 46 days.	

DIETARY STUDY NO. 143.

The members of this family were the father, 30, the mother, 29, and son, 3 years old. The son was born in this country. The father was a stevedore, receiving \$1.50 a day wages, but had been idle three months during the winter. They had lost three children, and were still owing \$15 to the undertaker and \$30 for groceries and meat. At this time they were paying cash for their food. They lived in a tenement house, occupying two rooms, one totally dark, the other poorly lighted by a window opening on a passageway between two houses. They paid \$4.25 a month rent. The rooms were kept very clean. Food was bought by the day. The woman often received a small piece of sausage with her beef in place of the customary liver. This woman paid 4 cents a quart for milk, i. e., mixed skim milk and cream, while a woman across the hall, buying of the same dealer, paid 6 cents per quart, the difference being in the amount of cream contained in the mixture. The "milk and cream" was sampled and found to contain but 1.7 per cent fat. On Sunday this family paid 5 cents a quart and received a trifle more cream. When in good circumstances they had coffee and beer at every meal, but when money was scarce little beer was bought. The food accessories used during the study, together with their cost, were as follows: Coffee, 39 cents; beer, 70 cents; yeast, 2 cents; salt, 4 cents.

The study began March 12, 1896, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man.....	42
Woman (42 meals \times 0.8 meal of man), equivalent to.....	34
Boy $3\frac{1}{2}$ years old (42 meals \times 0.4 meal of man), equivalent to.....	17

Total number of meals taken equivalent to..... 93

Equivalent to 1 man 31 days.

DIETARY STUDY NO. 144.

The family consisted of the father, 40 years old; the mother, 35 years old; and five daughters, aged 15, 6, 4, and 2 years, and 6 months, respectively. The four youngest children were born in this country. The mother and the 4-year-old daughter were in poor health. The father was a cabinetmaker and earned from \$6 to \$7 a week. He had been out of work for three months during the winter. The oldest daughter worked in a tailor's shop and earned \$2.50 to \$3 a week. The family occupied three rooms, at a rent of \$5.50 a month in winter and \$6 in summer. The food was bought by the day—the groceries on credit, the meat for cash. The food accessories used during the study, together with their cost, were as follows: Coffee, \$1.12; beer, 30 cents; yeast, 1 cent. The milk used was sampled and found to contain 1 percent fat.

The study began March 13, 1896, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man.....	42
Woman (42 meals \times 0.8 meal of man), equivalent to.....	34
Girl 15 years old (42 meals \times 0.7 meal of man), equivalent to.....	29
Girl 6 years old (42 meals \times 0.5 meal of man), equivalent to.....	21
Two girls, 4 and 2 years old (84 meals \times 0.4 meal of man), equivalent to.....	34
Infant 6 months old, equivalent to.....	13

Total number of meals taken equivalent to..... 173

Equivalent to 1 man 58 days.

DIETARY STUDY NO. 145.

The members of the family were as follows: The father, 35, the mother, 34, a daughter, 15, and a son 12 years of age. All were born in Bohemia. The father operated a rip saw in a sash and blind factory, earning \$1 a day. The mother earned \$2.50 a week finishing trousers, and the daughter was employed in a paper-box factory folding boxes. She earned \$3 a week. The boy attended school. The family was very neat and thrifty. They paid cash for their groceries, buying their flour and lard in large quantities. All the members of the family drank beer. They occupied four rooms, for which they paid \$6 a month rent. The food accessories used during the study and their cost were as follows: Coffee, 65 cents; beer, \$1.40; salt, 2 cents; yeast, 1 cent. The milk was sampled and found to contain 3.3 per cent fat.

The study began March 14, 1896, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man	42
Woman (42 meals \times 0.8 meal of man), equivalent to	34
Girl 15 years old (42 meals \times 0.7 meal of man), equivalent to	29
Boy 12 years old (42 meals \times 0.6 meal of man), equivalent to	25

Total number of meals taken equivalent to 130

Equivalent to 1 man 43 days.

DIETARY STUDY NO. 146.

The family consisted of the father, 40 years old; the mother, 38 years old; and five children—two boys, 14 years and 1 year old, and three girls, 13, 10, and 8 years old. The youngest child was born in this country. The father was a carpenter, but afflicted with sciatic rheumatism and unable to work. The mother took in washing, for which she received \$2 a week. The oldest boy worked in a box factory, earning \$2 a week. The oldest girl had work at times, pulling bastings, earning \$1.25 to \$1.50 a week. The two youngest girls attended school. The family paid \$4.50 a month rent for two rooms. The lard used during the study was bought unrendered. The milk used was sampled and found to contain 2.5 per cent fat. The food accessories used during the study and their cost were as follows: Coffee, \$1; catsup, 10 cents; salt, 5 cents.

The study began March 12, 1896, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man	42
Woman (42 meals \times 0.8 meal of man), equivalent to	34
Boy 14 years old (42 meals \times 0.8 meal of man), equivalent to	34
Two girls, 13 and 10 years old (84 meals \times 0.6 meal of man), equivalent to	50
Girl 8 years old (42 meals \times 0.5 meal of man), equivalent to	21
Boy 1½ years old (42 meals \times 0.3 meal of man), equivalent to	12

Total number of meals taken equivalent to 193

Equivalent to 1 man 64 days.

TABLE 11.—*Dietary studies among Bohemian families in Chicago*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohy- drates.	Fuel value.
<i>Dietary No. 74.¹—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Chuck, 13 lbs., 75 cts. (15)	Cents. 2.6	Grams. 33	Grams. 25	Grams.	Calories 368
Pork: Loin, 6 lbs., 42 cts. (27); shoulder, 2 lbs., 12 cts. (28); bacon, $\frac{1}{2}$ lb., 6 cts. (31); ham, $\frac{1}{2}$ lb., 5 cts. (104); sausage, $\frac{1}{2}$ lbs., 14 cts. (35); lard, 2 lbs., 16 cts. (113)	3.3	25	76	1	813
Eggs, 2 lbs., 14 ozs., 25 cts. (133) .....	.8	6	4	.....	62
Butter, 1 lb., 18 cts. (134) .....	.6	.....	13	.....	121
Cheese, 2 lbs., 25 cts. (139) .....	.9	9	11	1	139
Milk, 16 lbs., 40 cts. (44)	1.4	8	6	13	142
Total animal food	9.6	80	135	15	1,645
VEGETABLE FOOD.					
Cereals: Rye flour, 10 lbs., 20 cts. (150); wheat flour, 20 lbs., 40 cts. (49)	2.1	56	4	351	1,706
Sugar, 6 lbs., 26 cts. (167) .....	.9	.....	.....	94	385
Potatoes, 28 lbs., 28 cts. (192)	1.0	8	1	67	317
Beans (dried), 2 lbs., 6 cts. (176); lentils, 2 lbs., 8 cts. (183) .....	.5	15	1	37	223
Vegetables: Cabbage 5 lbs., 10 cts. (179); carrots, 2 lbs., 6 cts. (180); onions, 1 lb., 3 cts. (185) .....	.6	2	.....	7	37
Fruits: Prunes (dried), 1 lb., 10 cts. (217) .....	.3	.....	.....	9	37
Total vegetable food	5.4	81	6	565	2,705
Total food	15.0	161	141	580	4,350
<i>Dietary No. 75.¹—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Chuck, 3 lbs., 20 cts. (15) .....	.4	5	4	.....	58
Pork: Shoulder, 4 lbs., 30 cts. (28); sausage, 1 lb., 10 cts. (25); lard, $\frac{1}{2}$ lb., 6 cts. (113)	1.1	8	19	.....	210
Eggs, 11 ozs., 7 cts. (133) .....	.2	1	1	.....	14
Cheese (cottage), 1 lb., 5 cts. (137) .....	.1	4	2	.....	35
Milk, 28 lbs., 70 cts. (44)	1.6	10	7	15	108
Total animal food	3.4	28	33	15	485
VEGETABLE FOOD.					
Cereals: Barley, 1 lb., 5 cts. (144); rye flour, 20 lbs., 45 cts. (150); wheat flour, 10 lbs., 25 cts. (49)	1.7	31	3	251	1,184
Sugar, 4 lbs., 20 cts. (167) .....	.5	.....	.....	42	172
Potatoes, 10 lbs., 12 cts. (192) .....	.3	2	.....	16	74
Total vegetable food	2.5	33	3	309	1,430
Total food	5.9	61	36	324	1,915
<i>Dietary No. 76.¹—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Chuck, $\frac{7}{8}$ lbs., 53 cts. (15). Veal: Loin, 2 lbs., 18 cts. (83)	2.1	20	15	.....	222
Pork: Loin, 2 lbs., 16 cts. (27); bacon, $\frac{1}{4}$ lbs., 15 cts. (31); ham, 4 lbs., 65 cts. (104); sausage, $2\frac{1}{2}$ lbs., 24 cts. (35); lard, 1 lb., 10 cts. (113)	3.8	17	55	2	590
Eggs, 12 lbs., 15 ozs., \$1.17 (133)	3.4	23	16	.....	243
Butter, 3 lbs., 48 cts. (134)	1.4	.....	33	.....	307
Milk, 42 lbs., \$1.26 (44)	3.7	19	14	24	323
Total animal food	11.4	79	132	30	1,685
VEGETABLE FOOD.					
Cereals: Barley, 1 lb., 5 cts. (144); rye flour, 5 lbs., 10 cts. (150); wheat flour, 15 lbs., 37 cts. (49); oatmeal, 3 lbs., 15 ozs., 14 cts. (148); wheat bread, 16 lbs., 80 cts. (53)	4.3	71	9	362	1,859

¹ Statistics kept by the family and not entirely reliable. See p. 9.

TABLE 11.—*Dietary studies among Bohemian families in Chicago—Continued.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohydrates.	Fuel value.
<i>Dietary No. 76.¹—Duration, 7 days—Continued.</i>					
VEGETABLE FOOD—continued.					
	<i>Cents.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Calories.</i>
Sugar, 10 lbs., 45 cts. (167)	1.3			133	
Potatoes, 21 lbs., 20 cts. (192) .....	.6	5		43	197
Beans (dried), 1 lb., 4 cts. (176) .....	.1	3		8	45
Vegetables: Beets, 2 lbs., 5 cts. (177); cabbage, 2 lbs., 5 cts. (179); onions, 2 lbs., 5 cts. (185) .....	.5	1		6	29
Fruits: Lemons, 2½ lbs., 10 cts. (208) .....	.3			1	4
Total vegetable food	7.1	80	9	553	2,680
Total food	21.5	159	142	583	4,365
<i>Dietary No. 77.¹—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Chuck, 6 lbs., 40 cts. (15). Veal: Breast, 3 lbs., 21 cts. (83)	3.6	39	25		392
Pork: Loin, 3 lbs., 23 cts. (27); ham, 2 lbs., 20 cts. (104); lard, 3 lbs., 24 cts. (113)	3.9	20	117		1,170
Poultry: Chicken, 3 lbs., 33 cts. (128)	1.9	12	1		58
Eggs, 4 lbs. 5 ozs., 42 cts. (133)	2.5	15	11		163
Butter, ¼ lb., 16 cts. (134) .....	.9		11		102
Cheese: Cream, ½ lb., 6 cts. (139); cottage, ¼ lb., 4 cts. (137) .....	.6	8	7		88
Milk, 21 lbs., 56 cts. (44)	3.3	19	14	29	327
Total animal food	16.7	113	186	29	2,310
VEGETABLE FOOD.					
Cereals: Barley, ½ lb., 9 cts. (144); rye flour, 4 lbs., 10 cts. (150); wheat flour, 10 lbs., 25 cts. (49)	2.6	47	3	288	1,402
Sugar, 2 lbs., 10 cts. (167) .....	.6			53	217
Vegetables: Beets, 2 lbs., 5 cts. (177); cabbage, 1 lb., 3 cts. (179); onions, 1 lb., 4 cts. (185) .....	.7	1		8	37
Fruits: Lemons, 2½ lbs., 15 cts. (208); prunes, ½ lb., 5 cts. (217)	1.2	1	1	11	59
Total vegetable food	5.1	49	4	360	1,715
Total food	21.8	162	190	389	4,025
<i>Dietary No. 78.¹—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Round, 9 lbs., 72 cts. (67). Veal: Breast, 7 lbs., 59 cts. (83)	3.6	34	20		325
Pork: Shoulder, 3 lbs., 23 cts. (28); ham, 2 lbs., 24 cts. (104); sausage, 1 lb., 10 cts. (35)	1.6	11	22	1	254
Poultry: Chicken, 7 lbs., 38 cts. (128)	1.1	13	1		63
Fish: Carp, 2 lbs., 15 cts. (114) .....	.4	3			12
Eggs, 7 lbs. 3 ozs., 65 cts. (133)	1.8	12	9		133
Butter, ¼ lb., 13 cts. (134) .....	.4		5		46
Cheese, ½ lb., 20 cts. (139) .....	.5	5	6		76
Milk, 21 lbs., \$1.26 (44)	3.5	9	6	13	146
Total animal food	12.9	87	69	14	1,055
VEGETABLE FOOD.					
Cereals: Rye flour, 5 lbs. 10 ozs., 12 cts. (150); wheat flour, 5 lbs. 10 ozs., 13 cts. (49); rice, 2 lbs., 16 cts. (149); wheat bread, 2 lbs., 10 cts. (53)	1.4	20	2	142	683
Sugar, 10 lbs., 51 cts. (167)	1.4			126	516
Potatoes, 14 lbs., 13 cts. (192) .....	.4	3		27	123
Beans (dried), 1 lb., 4 cts. (176) .....	.1	3		7	41
Vegetables: Cucumbers, 4 lbs., 30 cts. (183); lettuce, 2 lbs., 10 cts. (184)	1.1	1		2	12
Fruits: Apples, 13 lbs., 26 cts. (203); bananas, 3 lbs., 5 cts. (204); lemons, 5 lbs. 11 ozs., 20 cts. (208)	1.4	1	2	30	145
Total vegetable food	5.8	28	4	334	1,520
Total food	18.7	115	73	348	2,575

¹ Statistics kept by the family and not entirely reliable. See p. 9.

TABLE 11.—*Dietary studies among Bohemian families in Chicago*—Continued.

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohy- drates.	Fuel value.
<i>Dietary No. 79.¹—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Chopped meat, 1 lb., 10 cts. (67); round, 7 lbs., 49 cts. (67); kidneys, 2 lbs., 5 cts. (75). Veal: Breast, 5 lbs., 50 cts. (83).....	<i>Cents.</i> 4.1	<i>Grams.</i> 42	<i>Grams.</i> 23	<i>Grams.</i>	<i>Calories.</i> 386
Pork: Loin, 2 lbs., 14 cts. (27); bacon, 1 lb., 10 cts. (31); sausage, 1 lb., 10 cts. (35); lard, 2½ lbs., 24 cts. (113).....	2.1	9	58	1	581
Poultry: Chicken, 4 lbs., 40 cts. (128).....	1.4	9	1	.....	46
Fish: Carp, 2 lbs., 10 cts. (114).....	.3	4	.....	.....	17
Eggs, 4 lbs. 5 oz., 36 cts. (133).....	1.3	9	7	.....	102
Cheese (cottage), 2 lbs., 14 cts. (137).....	.5	12	6	.....	105
Milk, 18 lbs., 55 cts. (44).....	2.0	10	7	15	168
Total animal food.....	11.7	95	102	16	1,405
VEGETABLE FOOD.					
Cereals: Barley, 2 lbs., 10 cts. (144); rye flour, 5 lbs., 10 ozs., 11 cts. (150); wheat flour, 5 lbs. 10 ozs., 18 cts. (49); rice, 1 lb., 7 cts. (149); wheat bread, 7 lbs., 35 cts. (53).....	2.9	39	3	239	1,167
Sugar, 4 lbs., 20 cts. (167).....	.7	.....	.....	65	267
Potatoes, 21 lbs., 27 cts. (192).....	1.0	6	.....	52	238
Beans (dried), 2 lbs., 13 cts. (178).....	.4	7	1	19	116
Vegetables: Cabbage, 4 lbs., 10 cts. (179); lettuce, 3 lbs., 15 cts. (184); onions, 2 lbs., 6 cts. (185).....	1.1	2	.....	7	37
Fruits: Apples, 10 lbs., 20 cts. (203); lemons, 1 lb. 2 ozs., 4 cts. (208).....	9	1	1	21	100
Total vegetable food.....	7.0	55	5	403	1,925
Total food.....	18.7	150	107	419	3,330
<i>Dietary No. 80.¹—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Round, 6½ lbs., 52 cts. (67); kidneys, 2 lbs., 6 cts. (75). Veal: Breast, 7 lbs., 63 cts. (83).....	8.1	79	41	.....	705
Pork: Chops, 1½ lbs., 17 cts. (27); bacon, ½ lb., 5 cts. (31); ham, 1 lb., 12 cts. (104); sausage, 2 lbs., 20 cts. (35); lard, 1 lb., 10 cts. (113).....	4.3	21	77	3	815
Poultry: Duck, 4½ lbs., 52 cts. (130).....	3.5	14	46	.....	485
Eggs, 4 lbs. 5 ozs., 39 cts. (133).....	2.6	17	12	.....	181
Butter, 1 lb., 32 cts. (134).....	2.1	.....	25	.....	232
Cheese, 1½ lbs., 23 cts. (139).....	1.5	12	16	1	202
Milk, 14 lbs., 42 cts. (44).....	2.8	14	11	22	250
Total animal food.....	24.9	157	228	26	2,870
VEGETABLE FOOD.					
Cereals: Barley, ½ lb., 3 cts. (144); wheat flour, 3 lbs., 10 cts. (49); oatmeal, 2 lbs., 10 cts. (148); wheat bread, 6 lbs., 30 cts. (53); pie, 6 lbs., 40 cts. (164).....	6.2	55	32	294	1,729
Sugar, 4 lbs., 20 cts. (167); chocolate, ½ lb., 22 cts. (171).....	2.8	.....	.....	125	513
Potatoes, 7 lbs., 10 cts. (192).....	.7	4	.....	32	148
Vegetables: Cabbage, 2 lbs., 6 cts. (179); cucumbers, 2 lbs., 10 cts. (181); lettuce, 1 lb., 7 cts. (184); onions, 2 lbs., 8 cts. (185).....	2.1	3	1	10	63
Fruits: Lemons, 2½ lbs., 10 cts. (208).....	.6	.....	.....	4	17
Total vegetable food.....	12.4	62	33	465	2,470
Total food.....	37.3	219	261	491	5,340

¹Statistics kept by the family and not entirely reliable. See p. 9.

TABLE 11.—*Dietary studies among Bohemian families in Chicago—Continued.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohy- drates.	Fuel value.
<i>Dietary No. 81.¹—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Round, 9 lbs., 56 cts. (67). Veal: Loin, 2 lbs., 20 cts. (87).....	<i>Cents.</i> 2.0	<i>Grams.</i> 24	<i>Grams.</i> 16	<i>Grams.</i>	<i>Calories.</i> 247
Pork: Shoulder, 6 lbs., 36 cts. (28); ham, 1½ lbs., 21 cts. (104); lard, 6½ lbs., 65 cts. (113).....	3.3	14	105	.....	1,034
Poultry: Chicken, 4 lbs., 46 cts. (128).....	1.2	7	1	.....	38
Eggs, 7 lbs. 3 ozs., 65 cts. (133).....	1.8	12	8	.....	124
Butter, ¼ lb., 11 cts. (134).....	.3	.....	5	.....	46
Milk, 34 lbs., \$1.03 (44).....	2.8	14	10	21	236
Total animal food.....	11.4	71	145	21	1,725
VEGETABLE FOOD.					
Cereals: Barley, 1 lb., 5 cts. (144); rye flour, 6 lbs., 15 cts. (150); wheat flour, 22 lbs., 44 cts. (49); rice, ¼ lb., 4 cts. (149); rye bread, 4 lbs., 20 cts. (56); wheat bread, 3 lbs., 15 cts. (53).....	2.8	55	4	314	1,550
Sugar, 6 lbs., 30 cts. (167).....	.8	.....	.....	74	304
Potatoes, 7 lbs., 31 cts. (192).....	.8	1	.....	13	58
Vegetables: Lettuce, 6 lbs., 30 cts. (184).....	.8	1	.....	2	13
Total vegetable food.....	5.2	57	4	403	1,925
Total food.....	16.6	128	149	424	3,650
<i>Dietary No. 82.¹—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Round, 5 lbs., 35 cts. (67); liver, ¼ lb., 2 cts. (76). Veal: Breast, ¼ lbs., 10 cts. (83).....	2.0	23	14	.....	225
Pork: Shoulder, 2½ lbs., 22 cts. (28); ham, ¼ lb., 9 cts. (104); sausage, 1 lb., 10 cts. (35); lard, 1 lb., 6 cts. (113).....	2.0	11	41	1	431
Eggs, 3 lbs. 8 ozs., 30 cts. (133).....	1.2	9	6	.....	93
Butter, ¼ lb., 18 cts. (134).....	.7	.....	12	.....	112
Cheese, ¼ lb., 8 cts. (139).....	.3	2	3	.....	36
Milk, 31 lbs. 15 ozs., 81 cts. (44).....	3.4	21	15	31	353
Total animal food.....	9.6	66	91	32	1,250
VEGETABLE FOOD.					
Cereals: Rye flour, 6 lbs., 15 cts. (150); wheat flour, 13 lbs., 26 cts. (49); oatmeal, 1 lb., 3 cts. (148); rice, 1 lb., 8 cts. (149).....	2.2	48	5	296	1,457
Sugar, 6 lbs., 27 cts. (167).....	1.1	.....	.....	113	464
Potatoes, 10½ lbs., 32 cts. (192).....	1.3	3	.....	30	136
Vegetables: Cabbage, 1 lb., 3 cts. (179); lettuce, 2 lbs., 8 cts. (184).....	.5	1	.....	2	13
Total vegetable food.....	5.1	52	5	441	2,070
Total food.....	14.7	118	96	473	3,320
<i>Dietary No. 83.¹—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Chuck, 9½ lbs., 70 cts. (15); brains, 4 lbs., 20 cts. (21); kidneys, 3 lbs., 15 cts. (75); liver, 6 lbs., 18 cts. (76). Veal: Breast, 5 lbs., 40 cts. (83). Mutton: Leg, 4 lbs., 36 cts. (94).....	11.1	131	75	3	1,247
Pork: Loin, 3 lbs., 30 cts. (27); bacon, 1 lb., 10 cts. (31); lard, 2 lbs., 20 cts. (113).....	3.3	15	76	.....	789
Poultry: Chicken, 7 lbs., 77 cts. (128).....	4.3	26	2	.....	125
Fish: Carp, 7 lbs., 35 cts. (114); sardines, ¼ lb., 7 cts. (125).....	2.3	26	3	.....	135
Eggs, 5½ lbs., 56 cts. (133).....	3.1	19	14	.....	208
Butter, 3 lbs., 84 cts. (134).....	4.7	.....	62	.....	577
Milk, 28 lbs., 70 cts. (44).....	3.9	24	18	36	414
Total animal food.....	32.7	241	250	39	3,475

¹ Statistics kept by the family and not entirely reliable. See p. 9.

TABLE 11.—*Dietary studies among Bohemian families in Chicago—Continued.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of foods consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohy- drates.	Fuel value.
<i>Dietary No. 83.'—Duration, 7 days—Continued.</i>					
VEGETABLE FOOD.					
Cereals: Barley, 1 lb., 5 cts. (144); wheat flour, 9 lbs., 27 cts. (49); oatmeal, 2 lbs., 12 cts. (148); rice, 2 lbs., 16 cts. (149); wheat bread, 5 lbs., 25 cts. (53).	<i>Cents.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Calories.</i>
Sugar, 4 lbs., 20 cts. (167)	4.7	63	8	328	1,678
Potatoes, 21 lbs., 45 cts. (192)	1.1			101	414
Beans (dried), $\frac{1}{2}$ lb., 4 cts. (176)	2.5	9		81	369
Vegetables: Beets, 2 lbs., 5 cts. (177); cabbage, 2 lbs., 5 cts. (179); carrots, 2 lbs., 5 cts. (180); cucumbers, 3 lbs., 14 cts. (181); lettuce, 4 lbs., 20 cts. (184); onions, 4 lbs., 10 cts. (185); parsnips, 2 lbs., 5 cts. (187)	.2	3		7	41
Fruits: Lemons, 2½ lbs., 10 cts. (208)	3.6	6	2	30	166
	.5			3	12
Total vegetable food	12.6	81	10	550	2,680
Total food	45.3	322	260	589	6,155
<i>Dietary No. 84.'—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Chuck, 9 lbs., 74 cts. (15); brains, 2 lbs., 10 cts. (21). Veal: Steak, 8 lbs., 78 cts. (84)	4.1	36	22		352
Pork: Loin, 4 lbs., 38 cts. (27); lard, 4 lbs., 24 cts. (113)	1.6	7	58		568
Poultry: Chicken, 3½ lbs., 40 cts. (128)	1.0	6	1		34
Fish: Sardines, $\frac{1}{2}$ lb., 8 cts. (125)	.2	1	1		13
Eggs, 15 lbs. 13 ozs., \$1.43 (133)	3.7	24	17		256
Butter, 3½ lbs., 98 cts. (134)	2.5		34		316
Cheese, $\frac{1}{2}$ lb., 10 cts. (139)	.3	2	2		27
Milk, 42 lbs., \$1.05 (44)	2.7	17	12	25	284
Total animal food	16.1	93	147	25	1,850
VEGETABLE FOOD.					
Cereals: Rye flour, 16 lbs., 40 cts. (150); wheat flour, 20 lbs., 40 cts. (49); oatmeal, 2 lbs., 10 cts. (148); rice, 1 lb., 8 cts. (149); wheat bread, 2 lbs., 10 cts. (53)	2.8	54	6	353	1,724
Sugar, 4 lbs., 18 cts. (167)	.4			46	188
Potatoes, 15 lbs., 20 cts. (192)	.5	3		27	123
Vegetables: Cabbage, 2 lbs., 6 cts. (179); lettuce, 4 lbs., 18 cts. (184); onions, 1 lb., 3 cts. (185)	.7	1		3	16
Fruits: Lemons, 1 lb. 2 ozs., 8 cts. (208)	.2			1	4
Total vegetable food	4.6	58	6	430	2,055
Total food	20.7	151	153	455	3,905
<i>Dietary No. 85.'—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Round, 11½ lbs., \$1.15 (67). Veal: Loin, 4 lbs., 32 cts. (87)	5.1	43	28		436
Pork: Loin, 7 lbs., 70 cts. (27); boiled ham, 1½ lbs., 18 cts. (30); lard, 3 lbs., 21 cts. (113)	3.8	22	83		861
Eggs, 10 lbs. 1 oz., 91 cts. (133)	3.1	20	15		222
Butter, $\frac{1}{2}$ lb., 19 cts. (134)	.7		10		93
Cheese, $\frac{1}{2}$ lb., 10 cts. (139)	.3	2	2		27
Milk, 30 lbs., 98 cts. (44)	3.4	16	12	24	276
Total animal food	16.4	103	150	24	1,915
VEGETABLE FOOD.					
Cereals: Rye flour, 6 lbs., 21 cts. (150); wheat flour, 10 lbs., 25 cts. (49); rice, 1½ lbs., 12 cts. (149); wheat bread, 6 lbs., 30 cts. (53)	3.0	43	3	257	1,257
Sugar, 8 lbs., 40 cts. (167)	1.4			125	513

¹Statistics kept by family and not entirely reliable. See p. 9.

TABLE 11.—*Dietary studies among Bohemian families in Chicago—Continued.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohydrates.	Fuel value.
<i>Dietary No. 85.¹—Duration, 7 days—Continued.</i>					
VEGETABLE FOOD—continued.					
Potatoes, 18 lbs., 26 cts. (192)	9	5		43	197
Vegetables: Cabbage, 4 lbs., 13 cts. (179); lettuce, 3 lbs., 15 cts. (184); onions, 4 lbs., 10 cts. (185)	1.3	3	1	10	63
Total vegetable food	6.6	51	4	435	2,030
Total food	23.0	154	154	459	3,945
<i>Dietary No. 86.¹—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Chuck, 7 lbs., 44 cts. (15); sirloin, 6 lbs., 75 cts. (63). Veal: Breast, 2 lbs., 20 cts. (61)	3.2	25	22		307
Pork: Chops, 10 lbs., \$1.04 (27); ham, 2 lbs., 20 cts. (104); sausage, 2 lbs., 15 cts. (35); lard, 3 lbs., 21 cts. (113)	3.7	22	71	1	755
Eggs, 5½ lbs., 52 cts. (133)	1.2	8	6		88
Butter, 34 lbs., 88 cts. (134)	2.1		30		279
Cheese, 1 lb., 10 cts. (139)	.2	1	2		23
Milk, 32 lbs., \$1.12 (44)	2.6	12	8	17	193
Total animal food	13.0	68	139	18	1,645
VEGETABLE FOOD.					
Cereals: Wheat flour, 20 lbs., 50 cts. (49); barley, 1 lb., 5 cts. (144); oatmeal, 2½ lbs., 10 cts. (148); rice, 2 lbs., 16 cts. (149); wheat bread, 14 lbs., 70 cts. (53)	3.5	55	5	273	1,392
Sugar, 10 lbs., 50 cts. (167); cocoa, ¼ lb., 10 cts. (172)	1.4	1	1	106	448
Potatoes, 56 lbs., 80 cts. (192)	1.9	11	1	90	423
Vegetables: String beans, 1 lb., 10 cts. (174); lettuce, 5 lbs., 25 cts. (184); onions, 2 lbs., 5 cts. (185); peas (green), 1 lb., 10 cts. (188)	1.2	1		5	25
Fruits: Apples, 5 lbs., 15 cts. (203); bananas, 10½ lbs., 45 cts. (204); lemons, 2½ lbs., 15 cts. (208)	1.7	1	1	24	112
Total vegetable food	9.7	69	8	498	2,400
Total food	22.7	137	147	516	4,045
<i>Dietary No. 87.¹—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Chuck, 7 lbs., 51 cts. (15); round, 3 lbs., 30 cts. (67). Veal: Loin, 4 lbs., 32 cts. (87). Mutton, 4 lbs., 24 cts. (95)	2.2	21	20		273
Pork: Chops, 3 lbs., 30 cts. (37); lard, 5 lbs., 40 cts. (113)	1.1	4	42		408
Poultry: Duck, 6 lbs., 78 cts. (130)	1.3	5	15		160
Eggs, 6 lbs. 7½ ozs., 54 cts. (133)	.9	6	4		62
Butter, 1½ lbs., 36 cts. (134)	.6		9		84
Cheese (cottage), 2 lbs., 13 cts. (137)	.2	5	3		48
Milk, 36 lbs., \$1.08 (44)	1.7	9	7	13	155
Total animal food	8.0	50	100	13	1,190
VEGETABLE FOOD.					
Cereals: Wheat flour, 18 lbs., 46 cts. (49); rye flour, 10 lbs., 35 cts. (150); barley, 1 lb., 4 cts. (144); oatmeal, 2 lbs., 10 cts. (148); rice, 1 lb., 9 cts. (149); apple pie, 3 lbs., 20 cts. (164)	2.0	28	5	184	916
Sugar, 10 lbs., 50 cts. (167)	.8			73	299
Potatoes, 35 lbs., 60 cts. (192)	1.0	5		39	180
Beans (dried), 1 lb., 4 cts. (176)	.1	2		4	25
Vegetables: Beets, 2 lbs., 4 cts. (177); cabbage, 2 lbs., 38 cts. (179); lettuce, 1 lb., 6 cts. (184); onions, 3 lbs., 7 cts. (185)	.9	2	1	8	50
Fruits: Apples, 15 lbs., 45 cts. (203); apples (dried), 2 lbs., 20 cts. (214); prunes (dried), 6 lbs., 54 cts. (217)	1.9	1	1	48	210
Total vegetable food	6.7	38	7	356	1,680
Total food	14.7	88	107	369	2,870

¹ Statistics kept by the family and not entirely reliable. See p. 9.

TABLE 11.—*Dietary studies among Bohemian families in Chicago—Continued.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohy- drates.	Fuel value.
<i>Dietary No. 88.¹—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Sirloin, 5½ lbs., 78 cts. (63); brains, 2 lbs., 10 cts. (21); kidneys, 2 lbs., 5 cts. (75). Veal: Loin, 3½ lbs., 28 cts. (87). Mutton: Neck, 2 lbs., 15 cts. (97).....	<i>Cents.</i> 7.6	<i>Grams.</i> 57	<i>Grams.</i> 48	<i>Grams.</i>	<i>Calories.</i> 680
Pork: Chops, 1½ lbs., 15 cts. (27); pigs' feet, 2½ lbs., 21 cts. (109); bacon, 2½ lbs., 26 cts. (31); ham, 2½ lbs., 30 cts. (104); sausage, ½ lb., 5 cts. (35); lard, 1 lb., 7 cts. (113).....	5.8	28	84	1	900
Fish: Sardines, ½ lb., 6 cts. (125).....	.3	3	2	.....	31
Eggs, 4 lbs. 5 ozs., 40 cts. (183).....	2.2	14	10	.....	150
Butter, 1 lb., 25 cts. (134).....	1.4	.....	21	.....	195
Cheese, ½ lb., 10 cts. (139).....	.6	3	4	.....	50
Cream, 4 lbs., 24 cts. (136).....	1.3	3	19	5	210
Total animal food	19.2	108	188	6	2,215
VEGETABLE FOOD.					
Cereals: Wheat flour, 5 lbs., 13 cts. (49); barley, 1 lb., 5 cts. (144); oatmeal, ½ lb., 3 cts. (148); rice, 1 lb., 8 cts. (149); wheat bread, 4 lbs., 20 cts. (53)...	2.7	37	3	195	980
Sugar, 2 lbs., 10 cts. (167).....	.6	.....	.....	50	206
Potatoes, 21 lbs., 70 cts. (192).....	3.9	10	1	81	383
Vegetables: String beans, 2 lbs., 20 cts. (174); cabbage, 2 lbs., 6 cts. (179); carrots, 2 lbs., 5 cts. (180); lettuce, 6 lbs., 30 cts. (184); onions, 2 lbs., 5 cts. (185); radishes, 4 lbs., 10 cts. (194).....	4.2	6	1	24	132
Fruits: Apples, 5 lbs., 11 cts. (203); bananas, 3 lbs., 15 cts. (204); lemons, 2½ lbs., 10 cts. (208); pineapple, 2 lbs., 20 cts. (210); strawberries, 1 lb., 12 cts. (212).....	3.8	2	2	36	174
Total vegetable food	15.2	55	7	386	1,875
Total food.....	34.4	163	195	392	4,090
<i>Dietary No. 89.¹—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Round, 6 lbs., 60 cts. (67); kidneys, 1 lb., 5 cts. (75); liver, 3 lbs., 12 cts. (76); corned, 3 lbs., 32 cts. (79). Veal: Breast, 6 lbs., 62 cts. (83)....	8.6	74	46	1	735
Pork: Chops, 3½ lbs., 32 cts. (27); bacon 1½ lbs., 14 cts. (31); sausage, 1½ lbs., 15 cts. (35); lard, 1½ lbs., 15 cts. (113).....	3.8	20	73	2	769
Poultry: Chickens, 4 lbs., 45 cts. (128).....	2.3	13	1	.....	63
Fish: Carp, 4 lbs., 20 cts. (114).....	1.0	11	.....	.....	45
Eggs, 3 lbs., 9½ ozs., 33 cts. (133).....	1.7	11	8	.....	120
Butter, 3 lbs., 75 cts. (134).....	3.7	.....	56	.....	521
Milk, 34 lbs., \$1.03 (44).....	5.1	26	19	40	447
Total animal food	26.2	155	203	43	2,700
VEGETABLE FOOD.					
Cereals: Barley, 1 lb., 5 cts. (144); oatmeal, 2 lbs., 10 cts. (148); rice, ½ lb., 4 cts. (149); wheat bread, 4 lbs., 20 cts. (53).....	2.0	22	5	107	575
Sugar, 5 lbs., 23 cts. (167).....	1.1	.....	.....	113	463
Potatoes, 14 lbs., 40 cts. (192).....	2.0	6	.....	49	226
Vegetables: Cabbage, 4 lbs., 18 cts. (179); cucumbers, 1 lb., 5 cts. (181); lettuce, 6 lbs., 29 cts. (184); onions, 1 lb., 3 cts. (185); radishes, 7 lbs., 35 cts. (194).....	4.5	5	1	18	104
Fruits: Strawberries, 8 lbs., 50 cts. (212).....	2.5	2	1	12	67
Total vegetable food	12.1	35	7	299	1,435
Total food.....	38.3	190	210	342	4,135

¹ Statistics kept by the family and not entirely reliable. See p. 9.

TABLE 11.—*Dietary studies among Bohemian families in Chicago—Continued.*

[For explanation of numbers in parentheses see Appendix, p. 21.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohydrates.	Fuel value.
<i>Dietary No. 90.—Duration, 7 days.</i>					
ANIMAL FOOD.					
Beef: Sirloin, 2 lbs., 36 cts. (63); brains, 1 lb., 5 cts. (21); kidney, 2 lbs., 10 cts. (75); liver 2 lbs., 10 cts. (76). Veal: Steak, 2 lbs., 20 cts. (84).					
Mutton: Chop, 1½ lbs., 14 cts. (95)	5.3	48	35	1	325
Pork: Bacon, ¼ lb., 5 cts. (31); ham, 1 lb., 16 cts. (104); lard, 1 lb., 8 cts. (113)	1.6	5	38	-----	373
Fish: Sardines, 1 lb., 12 cts. (125)	7	6	3	-----	53
Eggs, 2 lbs., 14 ozs., 24 cts. (133)	1.3	10	7	-----	106
Butter, 1 lb., 28 cts. (134)	1.6	-----	21	-----	185
Milk, 14 lbs., 42 cts. (44)	2.3	12	9	18	207
Cream, 2 lbs., 18 cts. (136)	1.0	1	9	2	96
Total animal food	13.8	82	122	21	1,555
VEGETABLE FOOD.					
Cereals: Wheat flour, 6 lbs., 15 cts. (49); oatmeal, 2 lbs., 10 cts. (148); wheat bread, 14 lbs., 70 cts. (55); soda crackers, 1½ lbs., 10 cts. (163)	5.9	79	12	364	1,929
Sugar, 4 lbs., 20 cts. (167)	1.1	-----	-----	101	415
Potatoes, 14 lbs., 40 cts. (192)	2.2	7	-----	54	250
Vegetables: Cucumbers, 2 lbs., 20 cts. (181); lettuce, 4 lbs., 20 cts. (184); onions, 2 lbs., 5 cts. (185); rhubarb, 1 lb., 5 cts. (195); radishes, 4 lbs., 10 cts. (194)	3.3	3	1	13	75
Fruits: Bananas, 3 lbs., 15 cts. (204); lemons, 2½ lbs., 10 cts. (206); peaches (canned), 2 lbs., 18 cts. (218); strawberries, 4 lbs., 24 cts. (212)	3.7	2	2	23	121
Total vegetable food	16.2	91	15	555	2,790
Total food	30.0	173	137	576	4,345
<i>Dietary No. 125.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Chuck, 12 lbs., 71 cts. (15); rib roast, 2½ lbs., 25 cts. (64); ribs, 1 lb., 6 cts. (65); round steak, 2½ lbs., 20 cts. (67); rump (no bone), 5 lbs., 5½ ozs., 28 cts. (68); rump, 2 lbs., 14 ozs., 17 cts., (69); beef and pork (chopped together), 5½ lbs., 50 cts. (19); veal, rib and kidney, 13 lbs., 1 oz., \$1.10 (17); liver, 2½ lbs. (23)	5.7	57	52	-----	716
Pork: Chop, 2½ lbs., 20 cts. (27); boiled ham, 1 lb., 20 cts. (30); ham sausage, 1½ lbs., 15 cts. (36); sausage, 1 lb., 1½ ozs., 11 cts. (35); lard, 5 lbs., 7 ozs., 29 cts. (113)	1.6	7	56	1	554
Eggs, 12 lbs., 10 ozs., \$1.20 (133)	2.0	13	9	-----	137
Butter, 1 lb., 24 cts. (134)	.4	-----	7	-----	65
Cheese, ¼ lb., 8 cts. (139)	.2	1	1	-----	13
Milk, 71 lbs., 10 ozs., \$1.72 (44)	2.9	18	13	28	310
Total animal food	12.8	96	138	29	1,795
VEGETABLE FOOD.					
Cereals: Wheat flour, 22 lbs., 46 cts. (49); rye flour, 14 lbs., 10 ozs., 27 cts. (150); barley, 2 lbs., 8 cts. (144); farina, 1 lb., 10 ozs., 7 cts. (143); oatmeal, ¼ lb., 2 cts. (148); rice, 1 lb., 8 cts. (149); wheat bread (baker's), 11½ lbs., 7 ozs., 8 cts. (53); soda crackers, 1 lb., 8 cts. (163)	1.9	38	4	253	1,230
Sugar, 10½ lbs., 58 cts. (167); sirup, ¼ lb., 2 cts. (169); cocoa, 7 oz., 20 cts. (172)	1.4	1	1	85	362
Potatoes, 32½ lbs., 20 cts. (192)	.3	5	-----	38	176
Vegetables: Onions, ¼ lb., 1 ct. (185); sauerkraut, 2 lbs., 5 cts. (60)	.1	-----	-----	1	4
Fruits: Apples, 8 lbs., 15 cts. (203); bananas, 6 lbs., 10 cts. (205); lemons, 11 ozs., 4 cts. (208); prunes (dried), 7 lbs., 56 cts. (217)	1.5	2	1	50	223
Total vegetable food	5.2	46	6	427	1,995
Total food	18.0	142	144	456	3,790

¹ Statistics kept by the family and not entirely reliable. See p. 9.

TABLE 11.—*Dietary studies among Bohemian families in Chicago—Continued.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohydrates.	Fuel value.
<i>Dietary No. 126.—Duration, 14 days.</i>					
ANIMAL FOOD.					
af: Chuck, 9 lbs., 46 cts. (15); chuck (no bone), 1 lb. 10 ozs., 7 cts. (14); leg, 3 lbs. 2 ozs., 10 cts. (72); fore shank, 1½ lbs., 5 cts. (70); shoulder steak (no bone), 1½ lbs., 14 cts. (73); liver, 2½ lbs. (76); frankforts, 1½ lbs., 16 cts. (34)	2.4	37	25	1	387
rk: Loin, 1 lb. 10 ozs., 29 cts. (26); neck, 2 lbs., 2 cts. (102); shoulder, 3½ lbs., 20 cts. (28); bacon, 1 lb., 3 cts. (31); brains, 1 lb., 5 cts. (21); scraps neck and shoulder, 2½ lbs., 5 cts. (28); lard (unried), 2 lbs. 6 ozs., 13 cts. (112)	2.1	17	47	-----	506
gs, 6 lbs. 10 ozs., 47 cts. (133)	1.2	10	7	-----	106
ese (cottage), 1 lb., 6 cts. (137)	-----	4	2	-----	35
ilk, 6 lbs., 9 cts. (44)	2	2	2	3	39
ilk, 3½ lbs., 70 cts. (39)	1.7	12	7	18	188
eam, ½ lb., 3 cts. (136)	1	-----	1	-----	9
Total animal food	7.8	82	91	22	1,270
VEGETABLE FOOD.					
reals: Rye flour, 13 lbs., 26 cts. (150); wheat flour, 8 lbs., 16 cts. (49); rye bread, 1 lb., 3 cts. (56); vanilla cakes, 1½ lbs., 9 cts. (158)	1.3	25	5	193	941
gar, 4 lbs. 8½ ozs., 23 cts. (167)	6	-----	-----	50	205
atoes, 16 lbs., 10 cts. (192)	3	3	-----	27	123
vegetables: Sauerkraut, 5 lbs. 9½ ozs., 12 cts. (60)	3	1	-----	2	12
uits: Apples, 1 lb., 2 cts. (203); bananas, 1½ lbs., 10 cts. (204); oranges, 1 lb., 5 cts. (207); prunes (dried), 1 lb., 5 cts. (217)	5	1	-----	11	49
Total vegetable food	3.0	30	5	283	1,330
Total food	10.8	112	96	305	2,600
<i>Dietary No. 127.—Duration, 14 days.</i>					
ANIMAL FOOD.					
af: Chuck, 12 lbs. 5 ozs., 68 cts. (15); rib ends, 1 lb., 5 cts. (65); tongue, 2½ lbs., 20 cts. (78); liver, 2½ lbs., 3 cts. (76). Veal: Kidney roast, 3 lbs. 6 ozs., 24 cts. (17)	1.8	24	18	-----	266
rk: rib ends (smoked), 2 lbs. 2 ozs., 13 cts. (31); shoulder, 7 lbs. 10½ ozs., 48 cts. (28); spare rib, 2 lbs., 5 cts. (98); brains, 1 lb., 5 cts. (21); lard, 4 lbs., 38 cts. (113)	1.7	13	50	-----	518
abbit (including liver, no bone) 1½ lbs., 11 cts. (132)	2	2	-----	-----	8
rgs, 4 lbs. 14½ ozs., 39 cts. (133)	6	5	3	-----	48
ilk, 6 lbs., 9 cts. (40)	2	1	1	2	22
ilk, 35 lbs. 3 ozs., 64 cts. (44)	1.0	9	6	13	146
utter, ½ lb., 6 cts. (134)	1	-----	3	-----	27
Total animal food	5.6	54	81	15	1,035
VEGETABLE FOOD.					
reals: Wheat flour, 27 lbs. 9½ ozs., 60 cts. (49); rye flour, 15 lbs., 30 cts. (150); farina, 2 lbs., 12 cts. (143); rice, 2 lbs., 12 cts. (149); rye bread, 3½ lbs., 3 cts. (56); biscuits, ½ lb., 3 cts. (153); soda crackers, 1 lb., 9 cts. (163)	2.0	42	4	268	1,318
gar, 8 lbs., 40 cts. (167)	6	-----	-----	57	234
atoes, 23 lbs. 2 ozs., 12 cts. (191)	2	3	1	30	145
vegetables: Carrots, ½ lb., 1 ct. (180); onions, 3 lbs., 4 cts. (185); sauerkraut, 2 lbs., 5 cts. (60); turnips, 2 lbs., 2 cts. (198)	2	1	-----	3	16
uits: Apples, 3 lbs. 5 ozs., 6 cts. (203)	1	-----	-----	3	12
Total vegetable food	3.1	46	5	361	1,715
Total food	8.7	100	86	376	2,750

TABLE 11.—*Dietary studies among Bohemian families in Chicago—Continued.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohy- drates.	Fuel value.
<i>Dietary No. 142.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Chuck, 4 lbs., 24 cts. (15); liver, 4½ lbs., 11 cts. (76); tripe, 13½ lbs., 13 cts. (18).....	<i>Cents.</i> 1.1	<i>Grams.</i> 41	<i>Grams.</i> 10	<i>Grams.</i> 1	<i>Calories.</i> 265
Pork: Chops, 2½ lbs., 14 cts. (27); shoulder, 4 lbs., 2 ozs., 27 cts. (28); rind, 1 lb. (106); smoked, 2½ lbs., 20 cts. (20); lard, 4 lbs. 9 ozs., 26 cts. (113)....	1.9	14	80	.....	802
Fish: Perch, 1 lb., 5 cts. (117).....	.1	1	.....	.....	4
Rabbit, 1½ lbs., 15 cts. (132).....	.3	4	.....	.....	17
Eggs, 5 lbs. 9 ozs., 47 cts. (133).....	1.0	7	5	.....	76
Milk, 31½ lbs., 70 cts. (39).....	1.5	11	6	16	167
Milk, 6 lbs., 9 cts. (44).....	.2	2	2	3	39
Total animal food.....	6.1	80	103	20	1,370
VEGETABLE FOOD.					
Cereals: Barley, 1 lb., 4 cts. (144); corn meal, 1 lb., 4 cts. (147); oatmeal, 1 lb., 4 cts. (148); rice, 2 lbs., 16 cts. (149); rye flour, 6 lbs. 6½ ozs., 14 cts. (150); wheat flour, 2½ lbs., 47 cts. (49); wheat bread, 1 lb. 14 ozs., 4 cts. (53).....	2.0	46	4	273	1,345
Sugar, 8½ lbs., 49 cts. (167).....	1.1	.....	.....	84	344
Potatoes, 25 lbs., 18 cts. (192).....	.4	4	1	37	178
Vegetables: Onions, 1 lb. 6½ ozs., 3 cts. (185); parsnips, 2 lbs., 3 cts. (187).....	.1	1	.....	4	20
Fruits: Prunes (dried), 1 lb., 5 cts. (217); raisins, ½ lb., 3 cts. (219).....	.2	.....	.....	8	33
Total vegetable food.....	3.8	51	5	406	1,920
Total food.....	9.9	131	108	426	3,290
<i>Dietary No. 143.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Chuck, 12 lbs. 10 ozs., 73 cts. (15); liver, 14 ozs. (76); bologna, 2 lbs., 15 cts. (33); frankforts, 14 ozs., 3 cts. (34). Veal: Steak, 1½ lbs., 10 cts. (84).....	3.3	43	32	1	478
Pork: Neck, 1 lb., 4 cts. (102); shoulder, 7 lbs. 15½ ozs., 56 cts. (28); boiled ham, ½ lb., 10 cts. (80); lard (unfried), 3 lbs. 14 ozs., 26 cts. (112).....	3.1	22	80	.....	834
Eggs, 7 lbs. 6 ozs., 52 cts. (133).....	1.7	14	10	.....	150
Butter, ½ lb., 7 cts. (134).....	.2	.....	3	.....	28
Cheese, 1 lb., 10 cts. (139).....	.3	4	5	.....	63
Milk, 35 lbs., 56 cts. (41).....	1.8	17	9	26	260
Milk, 6 lbs., 9 cts. (44).....	.3	3	2	5	52
Total animal food.....	10.7	103	141	32	1,885
VEGETABLE FOOD.					
Cereals: Wheat flour, 20 lbs., 40 cts. (49); rye flour, 6 lbs., 12 cts. (150); rye bread, 3 lbs., 8 cts. (56); rolls, 1 lb. 10½ ozs., 6 cts. (154); ginger cookies, ½ lb., 2 cts. (160); soda crackers, 1 lb., 8 cts. (163).....	2.4	56	7	332	1,656
Sugar, 6½ lbs., 34 cts. (167).....	1.1	.....	.....	95	390
Potatoes, 10 lbs. 9 ozs., 5 cts. (192).....	.2	3	.....	24	111
Vegetables: Soup greens, 1 lb., 2 cts. (182); sauerkraut, 4 lbs., 7 cts. (60).....	.3	2	.....	3	21
Fruits: Lemons, 7 ozs., 2 cts. (208); prunes (dried), 1 lb., 5 cts. (217).....	.2	.....	.....	9	37
Total vegetable food.....	4.2	61	7	463	2,215
Total food.....	14.9	164	148	495	4,080
<i>Dietary No. 144.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Chuck, 11 lbs. ½ oz., 55 cts. (15); liver, 12 ozs. (76); tripe, 1 lb., 4 cts. (18); liver sausage, 2 lbs., 10 cts. (181).....	1.2	18	14	2	211

TABLE 11.—*Dietary studies among Bohemian families in Chicago—Continued.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohy- drates.	Fuel value.
<i>Dietary No. 144.—Duration, 7 days—Continued.</i>					
ANIMAL FOOD—continued.					
Pork: Shoulder, 3½ lbs., 25 cts. (28); smoked, 3½ lbs., 24 cts. (29); brains, 2½ lbs., 12 cts. (21); lard (unfried), 2 lbs. 3 ozs., 21 cts. (112)	Cents. 1.6 5 1.2 1	Grams. 11 4 9 1	Grams. 35 3 3	Grams. 14 1	Calories. 370 44 122 8
Eggs, 3½ lbs., 30 cts. (133)					
Milk, 35 lbs., 70 cts. (42)					
Milk, 2 lbs., 3 cts. (44)					
Total animal food	4.6	43	55	17	755
VEGETABLE FOOD.					
Cereals: Oatmeal, 2 lbs., 10 cts. (148); rice, 10 ozs., 5 cts. (149); rye flour, 3 lbs., 6 cts. (150); wheat flour, 15 lbs. 13 ozs., 33 cts. (49); rye bread, 3½ lbs., 8 cts. (56); wheat bread, 10 ozs., 2 cts. (55); rolls, 7½ lbs., 33 cts. (154)	1.6 7 2	31 2	6	173 49 17	899 201 78
Sugar, 6 lbs. 3 ozs., 38 cts. (167)					
Potatoes, 14 lbs. 6 ozs., 10 cts. (192)					
Vegetables: Carrots, 5 lbs., 4 cts. (180); sauerkraut, 3 lbs., 6 cts. (60)	2	1 .....	..... .....	4	21
Fruits: Apples, 2½ lbs., 8 cts. (203); prunes (dried), 2 lbs., 10 cts. (217)	3	1 .....	..... .....	12	53
Total vegetable food	3.0	35	6	255	1,245
Total food	7.6	78	61	272	2,000
<i>Dietary No. 145.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Chuck, 10½ lbs., 59 cts. (15); round, 2½ lbs., 20 cts. (67); liver, 1 lb. (76); tripe, 1½ lbs., 5 cts. (18); bologna, 6 ozs., 3 cts. (33). Veal: Roast loin, 7 lbs. 10 ozs., 67 cts. (16); steak, 1 lb. 14 ozs., 15 cts. (84)	3.9	42	23	.....	385
Pork: Loin, 9 lbs. 7 ozs., 70 cts. (27); shoulder, 1½ lbs., 10 cts. (28); boiled ham, 6 ozs., 8 cts. (30); lard (unfried), 5 lbs. 1 oz., 20 cts. (112)	2.5 1.1 4	21 9	74 6 4	..... ..... 10	773 93 37
Eggs, 6 lbs. ½ oz., 48 cts. (133)					
Butter, ½ lb., 16 cts. (134)					
Milk, 35 lbs., 84 cts. (43)	2.0	13	12	10	242
Total animal food	9.9	85	119	10	1,530
VEGETABLE FOOD.					
Cereals: Wheat flour, 6½ lbs., 13 cts. (49); rice, ½ lb., 3 cts. (149); bread, 1 lb., 5 cts. (53); rye bread, 4½ lbs., 17 cts. (56); soda crackers, ½ lb., 5 cts. (163)	1.0 8 2	17	2	89 72 1	454 296 4
Sugar, 6 lbs. 13 ozs., 36 cts. (167)					
Vegetables: Sauerkraut, 3 lbs., 6 cts. (60)					
Fruits: Apples, 5 lbs. 6 oz., 18 cts. (203); lemons, 3 ozs., 2 cts. (208); prunes (dried), 2 lbs., 16 cts. (217)	8	1 .....	..... .....	20	86
Total vegetable food	2.8	18	2	182	840
Total food	12.7	103	121	201	2,370
<i>Dietary No. 146.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Chuck, 19 lbs. 3½ ozs., \$1.09 (15); liver, 1 lb. 15 ozs. (75); tripe, 2 lbs., 8 cts. (18); bologna, 1 lb., 5 cts. (33)	1.9 1 8	29 6	19 4	..... ..... .....	206 84 92
Pork: Lard, 1½ lb., 8 cts. (112)					
Eggs, 6 lbs. 2½ ozs., 49 cts. (132)					
Milk, 63 lbs., \$1.40 (44)	2.2	15	11	23	258
Total animal food	5.0	50	43	23	700

TABLE 11.—*Dietary studies among Bohemian families in Chicago—Continued.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohydrates.	Fuel value.
<i>Dietary No. 146.—Duration, 7 days—Continued.</i>					
VEGETABLE FOOD.					
Cereals: Wheat flour, 24½ lbs., 48 cts. (49); rye flour, 20 lbs., 40 cts. (149); farina, 1 lb., 5 cts. (142); rice, 1 lb., 7 cts. (148); rye bread, 2 lbs 5 ozs., 4 cts. (56); biscuits, 1 lb. 11 oz., 7 cts. (152); buns, 5 ozs., 1 ct. (154).....	<i>Cents.</i> 1.7	<i>Grams.</i> 39	<i>Grams.</i> 5	<i>Grams.</i> 266	<i>Calories.</i> 1,297
Sugar, 7½ lbs., 38 cts. (166).....	.6			53	217
Potatoes, 31 lbs. 3 ozs., 23 cts. (191).....	.4	4		3	28
Vegetables: Onions, 2 lbs., 4 cts. (184); sauerkraut, 2 lbs. 9 oz., 4 cts. (60).....	.1			2	8
Total vegetable food.....	2.8	43	5	324	1,550
Total food.....	7.8	93	48	347	2,250
Average of the 25 dietaries:					
Animal food.....	13.0	91	128	22	1,655
Vegetable food.....	6.7	52	7	402	1,925
Total food.....	19.7	143	135	424	3,580
Average of 8 more accurate dietaries:					
Animal food.....	8.0	74	96	22	1,285
Vegetable food.....	3.5	41	5	338	1,600
Total food.....	11.5	115	101	360	2,885

Discussion of results.—Twenty-five dietary studies were made among the Bohemians. Of these the first 17 were made by the families themselves, the last 8 by those conducting these investigations. The data in the studies in which the statistics were kept by the families are probably only approximate, and are not to be taken as in any way giving accurate information concerning food consumption (see p. 9). The dietaries of the 8 families more accurately studied showed a consumption of protein ranging from 78 to 164 grams and averaging 115 grams per day, while the energy varied from 2,000 to 4,080 calories and averaged 2,885 calories. The cost of the food per day ranged from 8 to 18 cents and was, on the average, 11 cents. These results indicate a very wise and prudent expenditure for food. The energy is somewhat smaller than the standard ordinarily assumed for men at moderate work, the average approaching somewhat more nearly that for men with little muscular labor. The cost, 11 cents per man per day, is unusually small. It is noticeable that in nearly all cases the Bohemians obtained their food at a lower cost than did any of the other nationalities studied. This is particularly noticeable in the animal foods, where the price paid per pound was frequently not more than two-thirds that paid by other families living in the same section of the city. This fact is brought out more forcibly when the amounts of nutrients obtained for 10 cents by the Bohemian families is compared with similar amounts obtained for 10 cents by others, as shown in the tables on pages 19, 25, 35, 42, 65, and 69.

TABLE 12.—Average cost per pound, and protein and energy contained in 10 cents' worth of some of the more important food materials used by the families of Bohemians.

Food materials.	Cost per pound.		Number of diet-aries in which used.	In 10 cents' worth.	
	Range.	Average.		Protein.	Energy.
	<i>Cents.</i>	<i>Cents.</i>		<i>Grams.</i>	<i>Calories.</i>
Beef, chuck	5 to 8	6	14	122	1,375
Beef, round	6 to 8	7.25	7	112	1,185
Veal, breast	7 to 10	8.25	6	83	645
Pork, loin	5.50 to 10	7.75	11	91	1,696
Pork, shoulder	5.75 to 8	6.75	11	104	1,945
Pork, sausage	8 to 10	9.50	8	53	1,725
Ham, smoked	10 to 18	13.25	7	46	1,250
Bacon	6 to 12	9.75	9	62	1,990
Chicken	5.50 to 11.50	9.75	6	70	335
Eggs, 10 to 15 cents; average 13 cents a dozen.	5 to 7.50	8.75	19	68	745
Butter	12 to 32	24.50	13	.....	1,425
Milk, 3 to 12 cents; average, 5 cents a quart.	1.50 to 6	2.50	19	62	1,035
Cheese	5 to 16	11	11	122	1,595
Wheat flour	2 to 3.25	2.25	19	299	7,690
Rye flour	1.75 to 2.50	2.25	16	151	7,650
Wheat bread	2 to 6	4.75	13	117	2,825
Rice	6 to 8	7.50	12	47	2,100
Beans, dried	3 to 8	4.75	5	212	3,330
Cabbage	2 to 3	2.50	8	32	550
Potatoes .....	.50 to 4.25	1.25	17	74	2,655
Cucumbers	5 to 7.25	6	3	5	100
Lettuce	4 to 7	5	6	10	170
Prunes	5 to 10	7.25	8	13	1,600
Lemons	3.50 to 10	4.75	10	7	315
Apples	1.75 to 3.50	2	7	8	1,160

It was planned to study the character of the food consumed by families resident in this country for different lengths of time. For this purpose 5 studies (Nos. 74-78 and 80) were made among families recently immigrated; 2 studies (Nos. 81 and 82) among families resident in this country between five and ten years; 5 studies (Nos. 83-87) among those who had been in the United States over ten years; and, finally, 3 studies (Nos. 88-90) among families born in this country but of Bohemian parentage.

The number of studies is too limited to warrant any definite conclusions regarding the effects of residence in this country upon the diet. The results obtained will, however, indicate that there is a gradual change in the diet. Thus, when the Bohemians first arrive their diet naturally tends to conform itself to that to which they had been accustomed. Large amounts of rye flour are used, pork in considerable amount, and comparatively little beef; but small amounts of the different cereal products other than rye flour, and scarcely any variety and amount of green vegetables and fruits. As they become more accustomed to the conditions existing here, they apparently consume less pork and more beef, more wheat flour and bread and less rye flour, and a greater variety of vegetables and fruits, until, in the case of the American-born families of Bohemian parentage, the diet was as varied as is usually found in the family of the native American. These statements do not imply that the food is necessarily more nutritious in the one case than in the other. The more varied diet would, however, ordinarily be considered the more attractive.

STUDIES AMONG AMERICAN FAMILIES.

Three dietary studies of families of American professional men in comfortable circumstances were made at the same time as those among the families of foreign birth or parentage living in the congested "West Side." The statistics of the studies are as follows:

DIETARY STUDY NO. 91.

This study was made with a professional man's family residing in the suburbs of Chicago. The family consisted of the father, 40, the mother, 30, years old; two children, 2 and 8 years old, and three women boarders. The man was a superintendent of schools and the three boarders were teachers. The food accessories used during the study and their cost were as follows: Coffee, \$1.20; pickles, 25 cents; yeast, 6 cents.

The study began April 28, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man	42
Four women (168 meals \times 0.8 meal of man), equivalent to	134
Child 8 years old (42 meals \times 0.5 meal of man), equivalent to	21
Child 2 years old (42 meals \times 0.4 meal of man), equivalent to	17
Visitors	11

Total number of meals taken equivalent to 225

Equivalent to 1 man 75 days.

DIETARY STUDY NO. 92.

This study was made with the family of a professional man living near Chicago. The members of the family were the father and mother, both elderly people; a daughter, one granddaughter, one grandson more than 18 years of age, and one grandson 15 years old. The father was a college professor.

The study began May 2, 1895, and continued 28 days. The number of meals taken was as follows:

	Meals.
Two men	168
Three women (252 meals \times 0.8 meal of man), equivalent to	202
Boy 15 years old (84 meals \times 0.8 meal of man), equivalent to	67

Total number of meals taken equivalent to 437

Equivalent to 1 man 146 days.

DIETARY STUDY NO. 93.

This study was made with the family of a college professor living in Chicago. The family consisted of the husband and wife and one woman servant. In addition to the food, tea, coffee, and cocoa, costing 60 cents, were consumed.

The study began April 27, 1895, and continued 14 days. The number of meals taken was as follows:

	Meals.
Man	42
Two women (84 meals \times 0.8 meal of man), equivalent to	67
Guests	3

Total number of meals taken equivalent to 112

Equivalent to 1 man 37 days.

TABLE 13.—*Dietary studies among professional men's families in and near Chicago.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohy- drates.	Fuel value.
<i>Dietary No. 91.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Porterhouse steak, 5½ lbs., \$1.06 (63); rib roast, 14 lbs., \$2.48 (64); round, 5½ lbs., \$1.26 (66); dried and smoked, 1½ lbs., 28 cts. (80). Veal: Neck, 2½ lbs., 31 cts. (89); rib, 6 lbs., 84 cts. (91); steak, 1½ lbs., 20 cts. (85). Lamb: Loin, 7½ lbs., \$1.09 (96)	<i>Ocets.</i> 10.2	<i>Grams.</i> 41	<i>Grams.</i> 43	<i>Grams.</i> -----	<i>Calories.</i> 568
Pork: Chops, 2½ lbs., 23 cts. (98); tenderloin, 2½ lbs., 53 cts. (101); bacon, ½ lb., 9 cts. (110); ham, 1½ lbs., 25 cts. (104)	1.5	6	10	-----	118
Poultry: Chicken, 1½ lbs., \$1.47 (128)	2.0	10	1	-----	50
Fish: Whitefish, 4½ lbs., 65 cts. (121)	.9	3	1	-----	22
Eggs, 12½ lbs., \$1.15 (132)	1.5	10	7	-----	106
Butter, 9½ lbs., \$2.43 (134)	3.2	-----	47	-----	437
Cheese, 1 lb., 18 cts. (139)	.2	2	2	-----	27
Milk, 56 lbs., \$1.68 (135)	2.2	11	13	17	235
Cream, 7 lbs., \$1.23 (136)	1.6	1	8	2	87
Total animal food	23.3	84	132	19	1,650
VEGETABLE FOOD.					
Cereals: Corn meal, 6 lbs., 15 cts. (147); wheat flour, 33 lbs., 75 cts. (140); soda crackers, 2 lbs., 38 cts. (163); macaroni, 2 lbs., 15 cts. (141)	1.9	28	4	193	943
Sugar, 10 lbs., 50 cts. (167); molasses, ½ lb., 5 cts. (165)	.7	-----	-----	63	253
Potatoes, 60 lbs., \$1 (192)	1.3	7	-----	56	258
Vegetables: Asparagus, ½ lb., 16 cts. (173); wax beans, 2½ lbs., 20 cts. (174); cucumbers, 11 lbs., 85 cts. (181); lettuce, 1 lb., 10 cts. (184); onions, 1 lb., 10 cts. (185); peas (fresh), 3½ lbs., 20 cts. (189); radishes, 1 lb., 10 cts. (194); tomatoes, 4 lbs., 30 cts. (197)	2.7	2	1	8	50
Fruits: Bananas, 13½ lbs., \$1 (204); lemons, 4½ lbs., 13 cts. (208); prunes (dried), 1 lb., 25 cts. (217); strawberries, 9 lbs., \$1.37 (212)	3.7	2	1	20	101
Total vegetable food	10.3	39	6	340	1,610
Total food	33.6	123	138	359	3,260
<i>Dietary No. 92.—Duration, 28 days.</i>					
ANIMAL FOOD.					
Beef: Chopped, 2 lbs., 25 cts. (66); porterhouse steak, 10½ lbs., \$1.80 (63); rib roast, 10 lbs., \$1.50 (64); round, 4 lbs., 50 cts. (67); tongue, 5 lbs., 75 cts. (78); dried and smoked, 2 lbs., 30 cts. (80); gelatine, 1 oz., 15 cts. (82). Veal: Cutlets, 5 lbs., 60 cts. (85). Mutton: Chops, 3½ lbs., 45 cts. (95); leg, 3 lbs., 45 cts. (94)	4.6	23	24	-----	318
Pork: Ham, 7 lbs., 70 cts. (104); sausage, 1 lb., 10 cts. (111)	.5	3	9	-----	96
Poultry: Chicken, 4 lbs., 50 cts. (128)	.3	2	-----	-----	8
Fish: Whitefish, 4½ lbs., 63 cts. (121)	.4	2	-----	-----	8
Eggs, 18 lbs. 11 ozs., \$1.97 (133)	1.4	8	6	-----	89
Butter, 8 lbs., \$2.06 (134)	1.4	-----	21	-----	195
Milk, 293 lbs., 15 ozs., \$8.82 (135)	6.1	30	36	46	646
Total animal food	14.7	68	96	46	1,360
VEGETABLE FOOD.					
Cereals: Wheat flour, 15 lbs. 5 ozs., 46 cts. (140); oatmeal, 10 lbs., 50 cts. (148); rice, 3 lbs., 24 cts. (149); wheatlet, 4 lbs., 25 cts. (142); wheat bread, 3 lbs., 15 cts. (151); crackers, 6 lbs., 50 cts. (163)	1.4	15	5	91	481
Sugar, 30 lbs., \$1.35 (167); starch, 2 lbs., 30 cts. (170)	1.1	-----	-----	99	406
Potatoes, 19 lbs. 7½ ozs., 25 cts. (191)	.2	1	-----	11	49
Beans (dried), 3 lbs., 12 cts. (176); lima beans (dried), 3 lbs., 25 cts. (175)	.3	4	-----	12	66

TABLE 13.—*Dietary studies among professional men's families in and near Chicago—C'td.*

[For explanation of numbers in parentheses see Appendix, p. 73.]

Kinds and amounts of food consumed.	Cost and composition of food per man per day.				
	Cost.	Protein.	Fat.	Carbohy- drates.	Fuel value.
<i>Dietary No. 92.—Duration 28 days—Continued.</i>					
VEGETABLE FOOD—continued.					
Vegetables: Beets, 11 lbs., 27 cts. (177); lettuce, 2 lbs., 20 cts. (184); onions, 5 lbs., 10 cts. (185); parsnips, 4 lbs., 10 cts. (187); peas (canned), 4 lbs., 20 cts. (201); radishes, 3 lbs., 10 cts. (184); spinach, 2 lbs., 13 cts. (196); tomatoes, 2 lbs., 21 cts. (197); turnips, 2 lbs., 5 cts. (198).....	<i>Cents.</i> 9	<i>Grams.</i> 2	<i>Grams.</i> -----	<i>Grams.</i> 9	<i>Calories.</i> 45
Fruits: Apricots (dried), 2 lbs., 25 cts. (215); bananas, 2½ lbs., \$1.63 (204); oranges and lemons, 40 lbs., \$2.56 (209); peaches (canned), 7 lbs., \$1.05 (218); strawberries, 29 lbs., \$3.34 (212).....	6.1	2	2	32	158
Total vegetable food	10.0	24	7	254	1,205
Total food	24.7	92	103	300	2,565
<i>Dietary No. 93.—Duration, 14 days.</i>					
ANIMAL FOOD.					
Beef: Soup bone, 5½ lbs., 15 cts. (72). Veal: Chops, 1 lb., 10 cts. (87); steak, 2½ lbs., 25 cts. (85).....	1.4	14	7	-----	123
Pork: Chops, 1 lb., 10 cts. (98); bacon, 1½ lbs., 19 cts. (110); ham, 4 lbs., 49 cts. (104).....	2.1	10	31	-----	328
Poultry: Chicken, 5½ lbs., 62 cts. (128).....	1.7	9	1	-----	46
Eggs, 4 lbs. 5 oz., 42 cts. (133).....	1.1	7	5	-----	75
Butter, 4 lbs., 75 cts. (134).....	2.0	-----	40	-----	371
Milk, 6 lbs., 18 cts. (135).....	.5	2	3	4	53
Cream, 9 lbs., \$1.48 (136).....	4.0	3	20	5	219
Total animal food	12.8	45	107	9	1,215
VEGETABLE FOOD.					
Cereals: Wheat flour, 16 lbs., 32 cts. (140); oatmeal, 2 lbs., 7 cts. (148); wheatina, 2 lbs., 15 cts. (142); bread, 4 lbs., 20 cts. (151); crackers, 4 lbs., 28 cts. (163).....	2.8	39	10	242	1,246
Sugar, 20 lbs., 98 cts. (167); maple sugar, 1 lb., 10 cts. (168).....	2.9	-----	-----	255	1,047
Potatoes, 28 lbs., 40 cts. (192).....	1.1	6	-----	52	238
Vegetables: Asparagus, 5 lbs., 55 cts. (173); string beans, 2 lbs., 10 cts. (174); lettuce, 2½ lbs., 24 cts. (184); peas (canned), 4 lbs., 20 cts. (201); rhubarb, 9 lbs., 20 cts. (195); tomatoes, 4 lbs., 24 cts. (197).....	4.1	5	1	14	87
Fruits: Apples, 20 lbs., 75 cts. (203); bananas, 3 lbs., 10 cts. (204); lemons and oranges, 3½ lbs., 40 cts. (209); prunes (dried), 2 lbs., 20 cts. (217); straw-berries, 2 lbs., 55 cts. (212).....	5.4	2	2	55	252
Total vegetable food	16.3	52	13	618	2,870
Total food	29.1	97	120	627	4,085
Average of the three dietaries:					
Animal food.....	16.9	66	112	25	1,415
Vegetable food.....	12.2	38	9	404	1,895
Total food	29.1	104	121	429	3,310

Discussion of results.—In these dietaries is represented the food consumption of people in ordinarily well-to-do circumstances who are accustomed to buy food in large variety, even though many of the food materials used furnish but very slight nutritive return for the money expended. The average cost of the food per man per day (29 cents) was high. The protein ranged from 92 to 123 grams and averaged 104

grams, the energy from 2,565 to 4,085 calories and averaged 3,310 calories. No allowance is here made for waste, which would probably have somewhat reduced the nutrients actually consumed.

The following table shows the pecuniary economy of some of the more important food materials:

TABLE 14.—Average cost per pound, and protein and energy contained in 10 cents' worth of some of the more important food materials used by the families of American professional men.

Food materials.	Cost per pound.		Number of diets in which used.	In 10 cents' worth.	
	Range.	Average.		Protein.	Energy.
	<i>Cents.</i>	<i>Cents.</i>		<i>Grams.</i>	<i>Calories.</i>
Beef, porterhouse steak	17.50 to 19.25	18.25	2	40	575
Beef, round steak	12.50 to 24	19	2	45	475
Veal steak	10 to 20	12	3	75	635
Mutton chops	12.75 to 15	14.25	2	46	940
Ham, smoked	10 to 20	11.75	3	51	1,410
Chicken	11.75 to 12.75	12.50	3	54	260
Eggs (per dozen)	14 to 15.75	10	3	59	640
Bananas	3.25 to 7.50	6.25	3	5	470
Butter	18.75 to 25.75	24.50	3	.....	1,425
Milk (per quart)	6	3	3	50	1,075
Wheat flour	2 to 3	2.50	3	215	6,905
Crackers	7 to 19	9.75	3	48	1,965
Asparagus	11 to 21.25	12.25	2	7	85
Beans (green)	5 to 8	6.75	2	15	350
Potatoes	1.25 to 1.75	1.50	3	55	2,165
Tomatoes	6 to 10.50	7.50	3	5	140

One-eighth of the total food expenditure of these families was for flour, crackers, potatoes, beef (round), mutton chops, and smoked ham; these six articles, however, furnished more than one-fourth the total protein and energy of the diet. The variety of foods was large, including expensive cuts of meat and considerable amounts of green vegetables and fruits. With the exception of the flour (which as usual was the cheapest source of nutrients), crackers, potatoes, and mutton (lamb) chops, the food materials were nearly all fairly expensive. Evidently no attempt was made to adapt the diet to the pecuniary value of the different food materials. Variety and palatability were doubtless the chief factors in the choice of food. The cost is not, however, much larger than has been found to be the average in similar studies made elsewhere.

GENERAL DISCUSSION OF RESULTS.

The results obtained in the dietary studies which have been reported in the preceding pages are not sufficient in number to warrant sweeping and definite conclusions. They are, however, sufficient to indicate the existing dietary conditions among the foreign population residing in the "West Side" of Chicago. The attempt was made to select families which might be considered typical of their class, and since it is believed this end was accomplished the results may be assumed to

show the kind of food ordinarily eaten and, within limits, the amounts consumed and the prices paid for the different articles.

A somewhat detailed discussion of the kinds and amount of food consumed by the different nationalities studied has already been given immediately after the statistics for the different groups. In addition it is interesting to compare the results of the studies of the different nationalities with each other and with the results of similar investigations carried on among the different nationalities in their native countries. A large number of dietary studies have been made in many foreign countries and much information is available concerning the food habits of people in different parts of the world. It is also interesting to compare the results of the Chicago investigations with investigations made in other regions of the United States with families living under similar conditions and having about the same occupations and income.

In Table 15 the results of the dietary studies made in Chicago are compared with those of similar studies made in other parts of the United States and elsewhere:

TABLE 15.—*Comparison of Chicago dietaries with similar studies made elsewhere.*

	[Food purchased per man per day.]				
	Cost.	Protein.	Fat.	Carbohy- drates.	Fuel value.
	<i>Cents.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Grams.</i>	<i>Calories.</i>
Italians, Chicago, average of 4.....	15.8	103	111	391	3,060
Italian mechanics, etc., Naples, average of 5 ¹		76	83	396	2,290
Italian laborers, Rome, average of 3 ²	9.2	107	30	494	2,745
Italian laborers, chestnut or acorn diet, Rome, average of 2 ³		91	41	358	2,220
French Canadians, Chicago, average of 5.....	22.1	118	158	345	3,365
French Canadians, Massachusetts, average of 5 ³	23.0	111	193	485	4,235
French Canadians, Canada, average of 13 ³	14.0	108	106	526	3,585
Orthodox Russian Jews, Chicago, average of 4 ⁴	19.0	120	101	406	3,095
Unorthodox Russian Jews, Chicago, average of 6 ⁴	22.0	153	105	430	3,365
Russian laborers, Moscow, average of 9 ¹		106	49	488	2,890
Russian laborers, boarding club, Moscow ¹		132	80	584	3,630
Bohemians, Chicago, average of 8 ⁴	11.5	115	103	360	2,885
German mechanics, etc., Bavaria, average of 4 ⁶		134	63	491	3,150
Laborers, congested districts, New York, average of 19 ⁷	20.0	106	117	367	3,030
Laborers of very limited income, Pittsburg, average of 2 ⁸ (food actually eaten).....	11.0	81	97	311	2,510
Mechanics, eastern and central United States, average of 14 ⁸ (food actually eaten).....	20.0	103	150	402	3,465
American professional men, Chicago, average of 3.....	29.1	104	121	429	3,310
American professional men, eastern United States, average of 11 ⁹ (food actually eaten).....	23.0	106	127	423	3,330
American professional man, Indiana ¹⁰	18.0	106	102	340	2,780
Standard for men at moderate muscular work.....		125			3,500

¹ U. S. Dept. Agr., Office of Experiment Stations Bul. 21, pp. 178-180.

² Ann. Ig. Sper., n. ser., 4 (1894), p. 263.

³ U. S. Dept. Agr., Office of Experiment Stations Bul. 21, p. 181.

⁴ This average includes only the studies in which the foods were weighed by those conducting the studies.

⁵ This average includes both those studies in which the statistics were kept by the families themselves and those in which the statistics were kept by those in charge of the investigations. The figures are not to be considered as reliable. See p. 9.

⁶ U. S. Dept. Agr., Office of Experiment Stations Bul. 21, p. 179.

⁷ U. S. Dept. Agr., Office of Experiment Stations Bul. 46, p. 117.

⁸ U. S. Dept. Agr., Office of Experiment Stations Bul. 52, p. 41.

⁹ Storrs (Conn.) An. Rept. 1897 and U. S. Dept. Agr., Office of Experiment Stations Bul. 52.

¹⁰ U. S. Dept. Agr., Office of Experiment Stations Bul. 32, p. 15.

While the Italians in Chicago and Italy consumed about the same amounts of protein and carbohydrates, it is noticeable that the former

consumed more fat than the latter. This renders the fuel value somewhat higher for the Chicago families. The French Canadian families in Chicago consumed about the same amounts of protein and other nutrients as was found to be the average for similar families in Massachusetts and Canada. In every case the fuel value was quite high.

Little difference is observed in the amount and kind of nutrients consumed by the orthodox and unorthodox Russian Jews in Chicago. Although the orthodox Russian Jews ate no pork, which is a common source of fat, the total fat obtained was practically the same as in the case of the unorthodox Russian Jews, and was considerably larger than the amount consumed by Russian laborers near Moscow.

No dietary studies of Bohemians in their own country are available. Comparing the Bohemians in Chicago with German mechanics in Bavaria, it will be noticed that the former consumed considerably more fat than the latter.

The families in the congested regions of Chicago did not differ greatly in the amount and kind of nutrients consumed from the families in similar districts of New York. On an average the diet of the families studied in New York and Chicago was more abundant than that of the laborers of very limited income in Pittsburg.

A comparison of the averages of the dietary studies of foreign families in Chicago with the average results of dietary studies of mechanics' families made in different regions of the United States shows that the amount of protein was as large and the fuel value nearly as large as was found in the diet of comfortably nourished men doing moderate muscular work.

The diet of the American professional men in Chicago contained practically the same amounts of different nutrients as was found to be the average of similar studies made in other regions of the United States.

Many of the families of foreign birth or parentage studied in Chicago had very limited incomes; others were in comfortable circumstances. In neither case was the percentage of the total income expended for food excessive. The families of foreign birth or parentage consumed to a considerable extent the foods with which they were familiar in their native countries. Thus macaroni formed an important part of the diet of the Italians. The families in comfortable circumstances were not limited in the choice of food materials, since they had the means to purchase such as they desired, and it is presumable they consumed the foods which they preferred. In many cases, as pointed out in the discussion of the several groups, the families could have obtained a more nutritious diet for the sum expended or an equally nutritious diet for a smaller sum.

In case of families of very limited income the choice of foods was necessarily governed by their cost. There was little chance for the exercise of a preference for particular foods. In many cases it may be

said that with so little money it would be difficult to secure much more actual nutrients for the money expended than was obtained. Provided the foods were properly prepared by the families, it is difficult to suggest improvements in details in such cases. In many instances the houses were found to be untidy and the food did not appear appetizing. The need of training in housekeeping and cooking was very apparent. This applies to many of the families of more comfortable circumstances as well as to those of very limited income.

In general it may be said that the cost of a diet may be diminished by consuming less fruit, less expensive cuts of meats, and fewer vegetables than is ordinarily found to be the case. Fruits add comparatively little to the food value of a diet, although they are undoubtedly valuable for other reasons. The cheaper cuts of meats are as nutritious as the more expensive cuts and may be prepared in such a way that they are very palatable. Vegetable foods are apparently essential to a well regulated diet, although no marked advantage is observed due to great variety in this respect. Wheat flour in the form of bread, macaroni, etc., is one of the most nutritious and at the same time cheapest foods. This fact is apparently recognized, for in the dietary studies made in Pittsburg and New York, as well as in Chicago, wheat flour in some form constituted a considerable part of the diet.

The conditions of the families in the congested districts of Chicago and other cities can undoubtedly be improved by education. The housekeeper should be taught how to prepare and serve food. In this way the diet may be made more attractive and more wholesome.

APPENDIX.

As was explained on page 14, the number of dietary studies here reported was so large that it seemed best to omit some of the details of the computations which have ordinarily been given. The statistics of the dietary studies include, however, all the original data, and the following table shows the percentage composition of the different food materials that were used in the computations of the actual nutrients contained in the food. The numbers in parentheses following the weights and cost of the different foods in Tables 3, 5, 7, 9, 11, and 13 refer to the corresponding number in the column headed "Reference number" in the following table and show the proportions of protein, fats, and carbohydrates assumed in each material used.

In Table 16, Nos. 1 to 59 are actual analyses or averages of actual analyses reported in Tables 1 and 2, pages 12, 13. The remaining figures in the table are taken from Bulletin 28 of the Office of Experiment Stations of the United States Department of Agriculture on the "Average composition of American food materials."

TABLE 16.—Percentage composition of different food materials used in computing the nutrients in the food consumed in dietary studies made in Chicago.

Ref. No.	Kind of food material.	Refuse.	Water.	Protein.	Fat.	Carbohydrates.	Ash.
	FOODS USED BY JEWISH FAMILIES.						
	Beef:	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>
1	Chuck.....	34.5	36.5	11.3	17.1	.....	0.6
2	Do.....	16.2	61.1	11.7	10.3	.....	.7
3	Average, 2 analyses.....	25.3	48.8	11.5	13.7	.....	.7
4	Clod and cross ribs.....	.....	59.8	18.8	20.4	.....	1.0
5	Average, 3 analyses ¹.....	.....	61.2	18.3	19.5	.....	1.0
6	"Flanken" (plate).....	15.2	39.2	12.6	32.3	.....	.7
7	Average, 3 analyses ¹	20.9	44.6	13.5	20.3	.....	.7
	Veal:						
8	Breast.....	.....	73.2	23.1	2.5	.....	1.2
9	Do.....	46.8	38.9	12.3	1.3	.....	.7
10	Chuck.....	19.0	61.8	16.7	1.6	.....	.9
11	Rib.....	25.0	56.1	10.1	8.2	.....	.6
12	Shoulder.....	25.1	56.1	15.5	2.3	.....	1.0
13	Wienerwurst (Vienna sausage).....	.....	43.9	28.0	22.1	1.6	4.4
	FOODS USED BY BOHEMIAN FAMILIES.						
	Beef:						
14	Chuck.....	.....	64.9	19.2	14.8	.....	1.1
15	Do.....	15.7	54.7	16.2	12.5	.....	.9
	Veal:						
16	Roast.....	29.0	53.2	13.5	3.5	.....	.8
17	Roast with kidney.....	26.3	52.7	13.3	6.0	.....	.8
18	Tripe.....	.....	79.6	18.3	1.7	.....	.4
	Pork:						
19	Pork and beef (chopped together).....	.....	55.4	19.5	24.1	.....	1.0
20	Smoked, various cuts.....	.....	36.5	15.0	44.8	.....	3.7
21	Brains.....	.....	75.8	12.3	10.3	.....	1.6

¹ This includes previous analyses.

TABLE 16.—Percentage composition of different food materials used in computing the nutrients in the food consumed in dietary studies made in Chicago—Continued.

Ref. No.	Kind of food material.	Refuse.	Water.	Protein.	Fat.	Carbohydrates.	Ash.
	MISCELLANEOUS FOOD.						
	Beef:	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>
22	Soup meat.....	1.4	69.9	20.9	6.8	.....	1.0
23	Do.....	11.2	64.4	18.1	5.3	.....	1.0
24	Average, 2 analyses.....	6.3	67.2	19.5	6.0	.....	1.0
25	Scraps.....	21.2	39.9	13.1	25.1	.....	.7
	Pork:						
26	Chops.....	.....	50.0	19.5	29.5	.....	1.0
27	Do.....	16.6	41.7	16.3	24.6	.....	.8
28	Shoulder.....	5.8	53.8	15.4	24.2	.....	.8
29	Ham, smoked.....	28.4	27.3	10.2	29.6	.....	4.5
30	Ham, smoked, boiled.....	.....	39.2	18.2	37.0	.....	5.6
31	Side bacon.....	.....	23.3	9.8	30.2	.....	12.3
32	Head-cheese.....	.....	38.1	18.4	40.5	.....	3.0
	Sausage:						
33	Bologna.....	.....	63.1	17.2	13.8	1.7	4.2
34	Frankfort.....	.....	59.9	18.3	18.6	.....	3.2
35	Pork.....	.....	49.3	11.2	31.8	5.3	2.4
36	Ham.....	2.6	52.3	11.1	29.7	.....	4.3
37	Salmon, canned.....	.....	59.5	20.7	17.3	.....	2.5
	Dairy products:						
38	Milk (only per cent of fat determined).....	.....	87.2	3.3	3.7	5.1	.7
39	Do.....	.....	88.8	3.4	2.0	5.1	.7
40	Do.....	.....	87.8	3.4	3.0	5.1	.7
41	Do.....	.....	89.1	3.4	1.7	5.1	.7
42	Do.....	.....	89.8	3.4	1.0	5.1	.7
43	Do.....	.....	87.5	3.4	3.3	5.1	.7
44	Do.....	.....	88.3	3.4	2.5	5.1	.7
	Cereals:						
45	Wheat flour, poor quality.....	.....	11.7	14.8	.8	72.2	.5
46	Do.....	.....	11.8	14.3	.8	72.6	.5
47	Do.....	.....	11.7	13.8	.9	73.1	.5
48	Do.....	.....	11.0	13.9	1.1	73.5	.5
49	Average, 4 samples flour (Nos. 45-48).....	.....	11.6	14.2	.9	72.8	.5
50	Wheat bread, poor quality.....	.....	30.4	9.9	.9	57.4	1.4
51	Wheat bread.....	.....	32.6	12.9	.7	52.8	1.0
52	Do.....	.....	28.0	16.3	1.4	58.4	.9
53	Average, 3 samples.....	.....	30.3	13.0	1.0	54.6	1.1
54	Rye and wheat bread.....	.....	35.3	11.9	.3	51.5	1.0
55	Rye bread, poor quality.....	.....	35.0	10.3	.4	52.2	2.1
56	Average, 2 samples.....	.....	34.4	10.3	.5	53.0	1.8
57	Black bread.....	.....	36.9	9.6	.6	48.9	4.0
58	Cup cakes.....	.....	16.3	6.6	2.5	73.8	.8
59	Doughnuts.....	.....	56.5	5.1	7.0	30.8	.6
	Vegetables:						
60	Sauerkraut.....	.....	91.3	1.9	.2	3.3	3.3
	Beef:						
61	Chuck.....	17.0	56.3	15.7	10.2	.....	.8
62	Flank.....	3.8	57.5	17.2	20.7	.....	.8
63	Sirloin.....	13.0	52.6	15.9	17.6	.....	.9
64	Ribs.....	20.8	43.8	13.4	21.3	.....	.7
65	Rib trimmings.....	34.8	37.4	10.9	16.3	.....	.6
66	Round.....	.....	65.8	19.7	13.5	.....	1.0
67	Do.....	7.7	60.7	18.1	12.6	.....	.9
68	Rump.....	.....	56.7	16.8	25.6	.....	.9
69	Do.....	21.4	44.5	13.2	20.2	.....	.7
70	Shank, fore.....	36.9	42.9	12.3	7.3	.....	.6
71	Shank, hind.....	.....	67.8	19.8	11.5	.....	.9
72	Do.....	53.9	31.3	9.1	5.3	.....	.4
73	Shoulder.....	.....	68.3	19.3	11.3	.....	1.1
74	Do.....	16.4	56.8	16.1	9.8	.....	.9
75	Kidney.....	.....	76.7	16.9	4.8	.4	1.2
76	Liver.....	.....	69.8	21.6	5.4	1.8	1.4
77	Suet (from forequarter).....	.....	15.0	4.8	79.9	.....	.3
78	Tongue.....	15.1	53.9	14.8	15.3	.....	.9
79	Corned.....	9.4	49.6	14.2	22.8	.....	4.0
80	Dried and smoked.....	.....	50.8	31.8	6.8	.6	10.0
81	Liver sausage.....	.....	.....	12.2	20.2	15.4	.....
82	Gelatine.....	.....	13.6	84.2	.1	.....	2.1
	Veal:						
83	Breast.....	23.4	54.0	15.7	6.2	.....	.7
84	Leg.....	15.6	59.4	16.9	7.2	.....	.9
85	Leg, cutlets.....	4.0	65.6	20.0	9.5	.....	.9
86	Loin.....	.....	69.2	19.4	10.4	.....	1.0
87	Do.....	17.3	57.2	16.0	8.6	.....	.9
88	Neck.....	.....	72.6	19.5	6.9	.....	1.0
89	Do.....	31.5	49.9	13.3	4.6	.....	.7
90	Rib.....	.....	72.5	20.2	6.2	.....	1.1
91	Do.....	26.9	53.0	14.7	4.6	.....	.8

TABLE 16.—Percentage composition of different food materials used in computing the nutrients in the food consumed in dietary studies made in Chicago—Continued.

Ref. No.	Kind of food material.	Refuse.	Water.	Protein.	Fat.	Carbohydrates.	Ash.
	MISCELLANEOUS FOOD—continued.						
	Veal—Continued.	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>
92	Shoulder		68.3	19.9	10.7		1.1
93	Liver		73.1	20.4	5.3		1.2
	Mutton:						
94	Leg	18.0	51.4	14.9	14.9		.8
95	Loin	15.3	42.2	13.2	28.6		.7
96	Loin (lamb)	14.8	45.3	15.0	24.1		.8
97	Neck	28.4	41.6	11.7	17.6		.7
	Pork:						
98	Loin	15.8	43.8	14.1	25.6		.7
99	Rib and shoulder	18.1	41.8	13.8	25.5		.8
100	Loin		52.0	16.8	30.3		.9
101	Tenderloin		65.1	19.5	14.4		1.0
102	Head	68.4	13.7	3.8	13.9		.2
103	Ham, smoked		40.7	15.5	39.1		4.7
104	Do	14.4	34.9	13.3	33.4		4.0
105	Shoulder, fresh	32.5	35.9	10.4	20.7		.5
106	Salt pork		7.3	1.8	87.2		3.7
107	Do		19.9	7.3	67.1		5.7
108	Pigs' feet		68.2	16.1	14.8		.9
109	Do	35.5	44.6	10.0	9.3		.6
110	Bacon, smoked	8.0	16.8	9.2	61.8		4.2
111	Sausage		38.7	12.8	45.4	.8	2.3
112	Lard (not rendered)		13.9	3.3	82.1		.7
113	Lard				100.0		
	Fish:						
114	Carp	35.1	50.7	12.6	.7		.9
115	Cod, fresh	29.9	58.5	10.6	.2		.8
116	Herring, fresh	42.6	41.7	10.9	3.9		.9
117	Perch, white	62.5	28.4	7.2	1.5		.4
118	Salmon, fresh	29.5	48.1	13.5	8.1		.8
119	Sucker	50.1	35.2	9.2	4.8		.7
120	Trout	56.3	30.0	7.7	5.4		.6
121	Whitefish	53.5	32.5	10.3	3.0		.7
122	Herring, smoked	44.4	19.2	20.2	8.8		7.4
123	Sturgeon, smoked	7.0	46.0	19.1	14.0		13.9
124	Salmon, canned		64.9	20.7	10.8	1.2	2.4
125	Sardines, canned		56.4	25.3	12.7		5.6
126	Lobster, canned		77.8	18.1	1.1	.5	2.5
	Poultry:						
127	Chicken		74.2	22.8	1.8		1.2
128	Do	34.8	48.5	14.8	1.1		.8
129	Do	30.0	45.6	13.4	10.2		.8
130	Goose	22.2	33.1	10.3	33.8		.6
131	Turkey	22.7	42.4	15.7	18.4		.8
132	Rabbit, including liver, no bone			23.3	1.1		
133	Eggs	10.5	66.0	13.1	9.5		.9
134	Butter			82.4			
135	Milk		87.0	3.3	4.0	5.0	.7
136	Cream		74.0	2.5	18.5	4.5	.5
137	Dutch cheese (cottage)		35.2	37.1	17.7		10.0
138	Swiss cheese (schweitzer käse)		31.4	27.6	34.9	1.3	4.8
139	Whole-milk cheese		33.7	26.0	34.2	2.3	3.8
140	Wheat flour		12.5	11.3	1.1	74.6	.5
141	Macaroni		10.8	11.7	1.6	72.9	3.0
142	Wheatlet		10.4	12.3	1.4	75.0	.9
143	Farina		9.7	11.1	1.4	77.6	.2
144	Barley		10.8	9.3	1.0	77.6	1.3
145	Buckwheat flour		14.3	6.1	1.0	77.2	1.4
146	Buckwheat flour (self-raising)		12.2	6.8	1.0	74.7	5.3
147	Corn meal, bolted		12.9	8.9	2.2	75.1	.9
148	Oatmeal		7.2	15.6	7.3	68.0	1.9
149	Rice		12.4	7.8	.4	79.0	.4
150	Rye		12.7	7.1	.9	78.5	.8
151	Wheat bread		35.4	9.5	1.2	52.8	1.1
152	Biscuits (made with yeast)		23.3	10.2	5.2	60.4	.9
153	Biscuits (made with baking powder)		22.9	9.3	13.7	52.6	1.5
154	Rolls (average)		26.9	9.6	5.2	57.3	1.0
155	Buns		31.0	8.0	8.1	51.9	1.0
156	Cake (average of a number of varieties)		20.4	7.0	8.1	63.4	1.1
157	Cake, coffee		30.1	8.6	6.6	53.9	.8
158	Cake, vanilla		16.6	7.6	14.7	60.3	.8
159	Cake, vanilla snaps		5.8	6.8	15.7	71.2	.5
160	Cookies, ginger snaps		5.1	6.5	9.5	76.9	2.0
161	Cookies, sugar		7.1	6.8	8.9	75.3	1.9
162	Unleavened bread (as pilot bread)		7.9	12.4	4.4	74.2	1.1
163	Crackers, soda		8.0	10.3	9.4	70.5	1.8
164	Pie, apple		43.2	3.3	9.8	41.7	2.0

TABLE 16.—Percentage composition of different food materials used in computing the nutrients in the food consumed in dietary studies made in Chicago—Continued.

Ref. No.	Kind of food material.	Refuse.	Water.	Protein.	Fat.	Carbohydrates.	Ash.
	MISCELLANEOUS FOOD—continued.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.
165	Molasses		25.7	2.7		68.0	3.6
166	Sugar, brown					85.0	
167	Sugar, granulated					100.0	
168	Sugar, maple					82.8	
169	Sirup					70.1	
170	Starch					98.0	
171	Chocolate		10.3	12.5	47.1	26.8	3.3
172	Cocoa		4.6	21.6	28.9	37.7	7.2
	Vegetables:						
173	Asparagus		94.0	1.8	.2	3.3	.7
174	Beans, string		87.3	2.2	.4	9.4	.7
175	Beans, Lima (dried)		11.1	15.9	1.8	67.1	4.1
176	Beans, dried		13.2	22.3	1.8	59.1	3.6
177	Beets	20.0	70.0	1.3	.1	7.7	.9
178	Cabbage		90.3	2.1	.4	5.8	1.4
179	Do	15.0	76.8	1.8	.3	4.9	1.2
180	Carrots	20.0	70.5	.9	.3	7.4	.9
181	Cucumbers		81.6	.7	.2	2.1	.4
182	Do	15.0	82.9	3.8	.9	8.9	3.5
183	Lentils		10.7	28.0	1.5	58.6	3.2
184	Lettuce	18.0	77.1	1.1	.3	2.7	.8
185	Onions	10.0	78.6	1.5	.4	8.9	.6
186	Do		87.3	1.7	.4	9.9	.7
187	Parasnips	20.0	63.9	1.3	.5	12.9	1.4
188	Peas	50.0	39.0	2.2	.3	8.0	.5
189	Do		78.1	4.4	.5	16.1	.9
190	Peas, dried		10.8	24.1	1.1	61.5	2.5
191	Potatoes		78.9	2.1	.1	18.0	.9
192	Do	15.0	67.1	1.8	.1	15.3	.7
193	Radishes		90.8	1.4	.1	6.6	1.1
194	Do	30.0	83.6	1.0	.1	4.6	.7
195	Rhubarb	40.0	56.6	.4	.4	2.2	.4
196	Spinach		92.4	2.1	.5	3.1	1.9
197	Tomatoes		94.4	.8	.4	3.9	.5
198	Turnips	30.0	62.2	1.0	.1	6.1	.6
199	Beans, baked, canned		68.0	6.9	3.3	19.7	2.1
200	Corn, canned		75.7	2.8	1.3	19.3	.9
201	Peas, canned		85.3	3.6	.2	9.8	1.1
202	Tomatoes, canned		94.0	1.2	.2	4.0	.6
	Fruit:						
203	Apples	25.0	61.5	.4	.4	12.4	.3
204	Bananas	40.0	44.5	.7	.5	13.7	.6
205	Do		74.1	1.2	.8	22.9	1.0
206	Cranberries		88.5	.5	.7	10.1	.2
207	Grapes	25.0	59.1	1.0	1.3	13.3	.3
208	Lemons	30.0	62.5	.7	.6	5.8	.4
209	Oranges	27.0	64.5	.6	.4	7.1	.4
210	Pineapples		89.3	.4	.3	9.7	.3
211	Plums	4.8	74.6	1.0		19.1	.5
212	Strawberries		90.9	1.0	.7	6.8	.6
213	Whortleberries		82.4	.7	3.0	13.5	.4
214	Apples, dried		36.2	1.4	3.0	57.6	1.8
215	Apricots, dried		32.4	2.9		63.3	1.4
216	Currants, dried		27.9	1.2	3.0	65.7	2.2
217	Prunes, dried	15.0	22.4	2.0		58.6	1.3
218	Peaches, canned		93.7	.5	.2	5.3	.3
219	Raisins		14.0	2.5	4.7	74.7	4.1
220	Jelly		38.4	1.2		59.8	.6
221	Olive oil				100.0		

